

Manual



Service



# VL500™ Wash Luminaires

02.9685.0010



**PHILIPS**  
**VARI\*LTE**

## **VARI\**LITE*® - VL500™ LUMINAIRE SERVICE MANUAL**

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**VARI\**LITE*®** products are protected by one or more of the following patents, and other pending patent applications worldwide:

U. S. Patents No. 6,123,436; 6,113,252; 6,046,861; 6,031,749; 6,011,640; 5,969,868; 5,959,768; 5,934,794; 5,882,107; 5,829,868; 5,825,548; 5,798,619; 5,774,273; 5,769,527; 5,758,956; 5,728,994; 5,640,061; 5,590,954; 5,454,477; 5,432,691; 5,367,444; 5,329,431; 5,307,295; 5,282,121; 5,278,742; 5,209,560; 5,186,536; 5,073,847; 5,010,459; 4,980,806; 4,972,306; 4,800,474; 4,779,176; 4,701,833; 4,602,321;

U. S. Design Patents No. 439,356; 420,332; 417,300; 415,301; 413,995; 377,338; 366,712; 359,574; 350,408; 347,113;

Australia Patents No. 693,691; 683,695; 667,109; 649,264; 646,588; 586,095; 576,400; 546,433;

Australia Design Patents No. 128,796; 128,795;

Canada Patents No. 2,070,670; 2,050,375; 1,270,675; 1,259,058; 1,181,795;

Canada Design Patents No. 81,234; 81,233; 76,046;

European (UK) Patents No. 0 652 400; 0 586 049; 0 565 218; 0 547 732; 0 534 710; 0 495 305; 0 474 202; 0 379 970; 0 253 082; 0 253 081; 0 248 974; 0 192 882; 0 140 994; 0 060 068;

Germany Patents No. 694 25 943.8; 693 14 122.0; 692 08 615.3; 692 07 692.1; 691 31 478.0; 691 21 029.2; 690 33 385.4; 37 89 166.9; 37 68 727.1; 37 51 804.6; 37 50 201.8; 35 87 270.5; 32 79 888.1; 32 74 291.6;

Germany Design Patents No. M 98 01 745.4; M 96 04 515.9; M 96 04 514.0; M 94 07 689.8; M 94 02 951.2; M 499 03 583.6; M 498 11 203.9; G 93 12 884.3;

Spain Patents No. 2 090 191; 2 084 289; 2 020 960; 0 548 328;

Spain Utility Model Patent No. 2.031.748;

Spain Design Patents No. 0.137.502; 0.137.501; 0.133.573;

Greece Patent No. 910.400.544;

Hong Kong Patents No. 965/1990; 285/1987;

Japan Patents No. 2,843,696; 2,059,669; 2,055,324; 2,002,168; 1,966,525; 1,889,481; 1,792,721; 1,770,241; 1,723,825; 1,683,007; 1,533,011;

Japan Design Patents No. 985,985-1; 985,985; 947,552; 945,436-1; 945,436; 1,106,089; 1,077,598; 1,072,598; 1,060,414; 1,002,123;

Korea Patents No. 76,310; 42,639; 283,770; 181,180;

Korea Design Patents No. 209,896; 209,895;

Mexico Patent No. 180,148;

Singapore Patents No. 663/90; 134/87;

Taiwan Patents No. 78,726; 66,975; 65,380; 28,275;

United Kingdom Design Registrations No. 2082526; 2072562; 2056387; 2056386; 2042174; 2038212; 2033108; 2029499.

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### **VL500™ Luminaires Service Manual**

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Version as of: **21-May-2009**

Part number: **02.9685.0010 A**

VL500™ Luminaires Service Manual

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## How To Obtain Warranty Service

A copy of the Vari-Lite Limited Warranty was included in the shipping package for this VARI\***LITE**® product.

To obtain warranty service, please contact customer service at 1-877-VARI-LITE (1-877-827-4548) or [customerservice@genlytecontrols.com](mailto:customerservice@genlytecontrols.com) and request a Return Material Authorization (RMA) for warranty service. You will need to provide the model and serial number of the item being returned, a description of the problem or failure and the name of the registered user or organization. If available, you should have your sales invoice to establish the date of sale as the beginning of the warranty period.

Once you obtain the RMA, pack the unit in a secure shipping container or in its original packing box. Fill out the RMA form included at the end of this manual and place in shipping container along with a copy of your invoice (if available). Write the RMA number legibly on or near the shipping address label and return the unit, freight prepaid to:

**Vari-Lite**  
**Attention: Warranty Service (RMA# \_\_\_\_\_)**  
**10911 Petal Street**  
**Dallas, Texas 75238 USA**

As stated in the warranty, it is required that the shipment be insured and FOB our service center.

## Manual Revision History

VERSION	DATE
Rev. 0 (Initial)	17-July-2006
Rev. A	21-May-2009

## Compliance Notice

**FCC** This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when this equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with Vari-Lite system, service, and safety guidelines, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his/her own expense.



### Declaration of Conformity

We declare, under our sole responsibility, that this product complies with the relevant clauses of the following standards and harmonized documents:

#### Safety

EN 60598-1:2000/A11:2000 + A12:2002 Luminaire Safety Standard, General Requirements  
EN 60598-2 17:1989/A2:1991 Specification for Luminaires for Stage and Studio Lighting

#### EMC

EN 61000-6-4:2001 Emission Standard for industrial environments  
EN 61000-6-2:2001 Immunity for industrial environments

We certify that the product conforms to the protection requirements of council directives:  
73/23/EEC (LVD) and 89/336/EEC (EMC)



## Safety Notice

It is extremely important to read ALL safety information and instructions provided in this manual and any accompanying documentation before installing and operating the products described herein. Heed all cautions and warnings during installation and use of this product.

Safety symbols used throughout this manual are as follows:



**CAUTION** advising of potential damage to product.



**WARNING** advising of potential injury or death to persons.

GENERAL INFORMATION PERTAINING TO PROTECTION AGAINST ELECTRICAL SHOCK, FIRE, EXPOSURE TO EXCESSIVE UV RADIATION, AND INJURY TO PERSONS CAN BE FOUND BELOW.

### **WARNING:**

#### **INSTRUCTIONS FOR CONTINUED PROTECTION AGAINST FIRE**

1. VARI\***LITE**® luminaires have been designed for use only with certain Philips and Osram HID lamps. Note lamp type (MSR400, MSR700HR etc.) before replacing lamps. Installing another type of lamp may be hazardous.
2. Luminaires may be mounted on any type of surface as long as mounting instructions are followed. See instructions detailed in this manual.
3. Replace fuses with same type and rating only.
4. Note distance requirement from combustible materials or illuminated objects for VARI\***LITE**® luminaires.

### **WARNING:**

#### **INSTRUCTIONS FOR CONTINUED PROTECTION AGAINST ELECTRICAL SHOCK**

1. VARI\***LITE**® luminaires are designed for dry locations only. Exposure to rain or moisture may damage luminaire.
2. Disconnect power before servicing any VARI\***LITE**® equipment.
3. Servicing to be performed by qualified personnel only.

**WARNING:**

**INSTRUCTIONS FOR CONTINUED PROTECTION AGAINST EXCESSIVE EXPOSURE TO UV RADIATION**

1. Many VARI\**LITE*® luminaires use an HID type lamp that produces UV radiation. DO NOT look directly at lamp.
2. It is hazardous to operate luminaires without lens or shield. Shields, lenses, or ultraviolet screens shall be changed if they have become visibly damaged to such an extent that their effectiveness is impaired. For example, by cracks or deep scratches.

**WARNING:**

**INSTRUCTIONS FOR PROTECTION AGAINST INJURY TO PERSONS**

1. Exterior surfaces of the luminaire will be hot during operation. Use appropriate safety equipment (gloves, eye protection, etc.) when handling and adjusting hot equipment and components.
2. Luminaires will have a hot lamp when operating. Disconnect power and allow lamp to cool before replacing.
3. Arc lamps emit ultraviolet radiation which can cause serious skin burn and eye inflammation. Additionally, arc lamps operate under high pressure at very high temperatures. Should the lamp break, there can exist a danger of personal injury and/or fire from broken lamp particles being discharged.
4. Wear eye protection when relamping.
5. Appropriate safety equipment (gloves, eye protection) should be used when handling damaged lamps.
6. If lamp is touched with bare hands, clean lamp with isopropyl alcohol and wipe with lint-free cloth before installing or powering up the luminaire.
7. The lamp shall be changed if it has become damaged or thermally deformed.

**WARNING:**

**RF INTERFERENCE**

1. This is a Class A product. In a domestic environment this product may cause radio interference, in which case, the user may be required to take adequate measures.

**ARC LAMP CHARACTERISTIC CONSIDERATIONS**

1. Arc lamps require a period of time to relight after a power interruption or a severe voltage dip. In some cases, lamp will automatically relight after it has cooled depending on Lamp Power-Up State (L ON/ LOFF) system configuration setting.
2. Burning position is universal.

## Sicherheitshinweise

Es ist äußerst wichtig, ALLE Sicherheitsinformationen und -hinweise in diesem Handbuch und dem beiliegenden Informationsmaterial zu lesen, bevor Sie die hierin beschriebenen Produkte installieren bzw. bedienen. Halten Sie bei der Installation und dem Einsatz dieses Produkts alle Warnhinweise und Vorsichtsmaßnahmen ein.

Folgende Sicherheitssymbole werden in diesem Handbuch verwendet:



**VORSICHT** - weist auf möglichen Produktschaden hin.



**WARNUNG** - weist auf mögliche Körperverletzung und Lebensbedrohung hin.

NACHSTEHEND FINDEN SIE ALLGEMEINE HINWEISE ÜBER SICHERHEITSVORKEHRUNGEN GEGEN ELEKTROSCHOCK, FEUER, ÜBERHÖHTE UV-STRahlung UND KÖRPERVERLETZUNGEN.

### **WARNUNG:**

#### **HINWEISE ZUM FEUERSCHUTZ**

1. VARI\***LITE**®-Scheinwerfer sind ausschließlich für den Einsatz mit bestimmten Philips und Osram HID-Lampen geeignet. Achten Sie auf den Lampentyp (MSR400, MSR700HR etc.), bevor Sie die jeweiligen Lampen ersetzen. Die Installation eines anderen Lampentyps kann gefährlich sein.
2. Scheinwerfer können auf jeder beliebigen Oberfläche montiert werden, solange Sie die Montageanweisungen befolgen. Detaillierte Hinweise finden Sie in diesem Handbuch.
3. Ersetzen Sie Sicherungen nur mit Sicherungen vom gleichen Typ und gleicher Stärke.
4. Beachten Sie die Einhaltung des erforderlichen Sicherheitsabstandes der VARI\***LITE**®-Scheinwerfer von brennbarem Material oder beleuchteten Objekten.

### **WARNUNG:**

#### **HINWEISE ZUM SCHUTZ GEGEN ELEKTROSCHOCK**

1. VARI\***LITE**®-Scheinwerfer eignen sich ausschließlich für trockene Standorte. Regen oder Feuchtigkeit können die Scheinwerfer beschädigen.
2. Unterbrechen Sie die Stromzufuhr, bevor Sie mit der Arbeit an VARI\***LITE**®-Geräten beginnen.
3. Die Geräte sollten nur von qualifiziertem Personal gewartet werden.

### **WARNUNG:**

#### **HINWEISE ZUM SCHUTZ GEGEN ÜBERHÖHTE UV-STRahlung**

1. Viele VARI\***LITE**®-Scheinwerfer verwenden einen HID-Lampentyp, der UV-Strahlen abgibt. **SCHAUEN SIE NICHT** direkt in die Lampe.

2. Es ist gefährlich, Leuchten ohne Linsen oder Blenden zu bedienen. Blenden, Linsen oder Ultraviolettsschirme müssen ausgetauscht werden, sofern deren Schutzwirkung durch sichtbare Beschädigung (z. B. Sprünge oder Schrammen) eingeschränkt ist.

**WARNUNG:**

**HINWEISE ZUM SCHUTZ GEGEN KÖRPERVERLETZUNGEN**

1. Bei Betrieb sind die Außenflächen der Scheinwerfer heiß. Verwenden Sie bei der Bedienung von aufgeheizter Apparatur die jeweils geeignete Sicherheitsausrüstung (Handschuhe, Augenschutz etc.).
2. Bei Betrieb der Scheinwerfer ist die Lampe heiß. Unterbrechen Sie die Stromzufuhr und lassen Sie die Lampe abkühlen, wenn Sie diese austauschen.
3. Bogenlampen senden ultraviolette Strahlen aus, die Hautverbrennungen und Augenentzündungen verursachen können. Der Betrieb von Bogenlampen erfolgt unter Hochdruck und bei hohen Temperaturen. Sollte die Lampe zerbrechen, besteht die Gefahr von Körperverletzung bzw. von Feuer, das von Lampenteilen ausgelöst werden kann.
4. Tragen Sie beim Austausch der Lampen einen Augenschutz.
5. Die geeignete Sicherheitsausrüstung (Handschuhe, Augenschutz) sollte beim Umgang mit beschädigten Lampen verwendet werden.
6. Wenn die Lampe mit bloßen Händen berührt wird, reinigen Sie sie mit isopropyl Alkohol und einem flusenfreien Tuch, bevor Sie die Scheinwerfer installieren oder in Betrieb nehmen.
7. Wenn die Lampe beschädigt oder durch Hitzeeinwirkung deformiert ist, muß diese ausgetauscht werden.

**WARNUNG:**

**HF-INTERFERENZ**

1. Es handelt sich um ein Produkt der Klasse A. In einer Wohnumgebung kann das Produkt Hochfrequenzstörungen verursachen. In diesem Fall müssen eventuell geeignete Maßnahmen getroffen werden.

**BESONDERHEITEN VON BOGENLAMPEN**

1. Bogenlampen benötigen eine gewisse Zeitdauer, um nach einem Stromausfall oder einem Spannungsgefälle wieder aufzuleuchten. In einigen Fällen wird die Lampe nach Abkühlung automatisch wieder aufleuchten, je nach der Systemkonfigurationseinstellung des Lampeneinschaltungsstatus (L ON/ LOFF).
2. Die Brennposition ist Universal.

## Notes de sécurité

Avant de procéder à l'installation des produits décrits dans ce guide et de les mettre en marche, il est extrêmement important de lire TOUS les renseignements et TOUTES les directives de sécurité contenues dans ce guide ainsi que toute documentation jointe. Tenir compte de tous les avertissements et suivre toutes les précautions pendant l'installation et l'utilisation de cet appareil.

Les symboles de sécurité utilisés dans ce guide sont les suivants :



**ATTENTION** Ce symbole annonce que l'appareil risque d'être endommagé.



**AVERTISSEMENT** Ce symbole annonce qu'il y a risque d'accident grave ou même fatal.

CETTE SECTION CONTIENT DES INFORMATIONS GÉNÉRALES POUR SE PROTÉGER CONTRE LES DÉCHARGES ÉLECTRIQUES, LES INCENDIES, L'EXPOSITION EXCESSIVE AUX RAYONS UV ET TOUT AUTRE ACCIDENT POUVANT ENTRAÎNER DES BLESSURES.

### AVERTISSEMENT:

#### DIRECTIVES POUR SE PROTÉGER CONTRE LES INCENDIES

1. Les luminaires VARI\***LITE**® ont été conçus pour être utilisés uniquement avec certaines lampes Philips et Osram HID. Vérifier le type de lampe (MSR400, MSR700HR etc.) avant de remplacer les lampes. L'installation d'un autre type de lampe peut poser un danger.
2. Les luminaires peuvent être fixés sur tout type de surface tant que les directives de montage sont respectées. Voir les explications détaillées dans ce guide.
3. Ne remplacer les fusibles qu'avec ceux du même type, ayant les mêmes caractéristiques.
4. Vérifier la distance à respecter entre les matériaux combustibles ou les objets illuminés et les luminaires VARI\***LITE**®.

### AVERTISSEMENT:

#### DIRECTIVES POUR SE PROTÉGER CONTRE LES DÉCHARGES ÉLECTRIQUES

1. Les luminaires VARI\***LITE**® sont conçus pour une utilisation au sec uniquement. Une exposition à la pluie et à l'humidité risque d'endommager le luminaire.
2. Débrancher l'appareil avant de procéder à la révision de tout matériel VARI\***LITE**®.
3. Les révisions doivent être effectuées uniquement par des personnes qualifiées.

**AVERTISSEMENT:**

**DIRECTIVES POUR SE PROTÉGER CONTRE UNE EXPOSITION EXCESSIVE AUX RAYONS UV**

1. Plusieurs luminaires VARI\**LITE*® utilisent une lampe de type HID qui produit des rayons UV. NE PAS fixer son regard sur la lampe.
2. L'utilisation des luminaires sans lentille ou blindage pose des risques. Tous blindages, lentilles ou écrans ultraviolet visiblement endommagés au point que leur efficacité en est affectée doivent être remplacés, par exemple s'il y a des fissures ou de profondes rayures.

**AVERTISSEMENT:**

**DIRECTIVES POUR SE PROTÉGER CONTRE LES ACCIDENTS POUVANT ENTRAÎNER DES BLESSURES**

1. Les surfaces externes du luminaire deviennent brûlantes quand l'appareil est en marche. Pour manœuvrer ou ajuster des appareils brûlants et leurs composants, se protéger suffisamment (gants, protection pour les yeux, etc.).
2. La lampe du luminaire est brûlante lorsqu'il est en marche. Débrancher le courant et attendre que la lampe ait refroidi avant de la remplacer.
3. Les lampes à arc émettent des rayons ultraviolets pouvant causer de graves brûlures sur la peau et une inflammation des yeux. De plus, les lampes à arc fonctionnent sous haute tension à de très hautes températures. Si la lampe se casse, les particules de la lampe cassée peuvent causer blessures et/ou incendie en s'éparpillant.
4. Se protéger les yeux pour remplacer la lampe.
5. Utiliser des appareils de protection appropriés (gants, protection des yeux) pour manier des lampes endommagées.
6. Si la lampe a été touchée avec des mains nues, la nettoyer avec de l'alcool isopropyl et l'essuyer avec un chiffon non-pelucheux avant d'installer ou de brancher le luminaire.
7. Si la lampe a été endommagée ou a reçu une déformation thermique, elle doit être remplacée.

**AVERTISSEMENT:**

**INTERFÉRENCE RF**

1. Cet appareil est de Classe A. Dans un environnement domestique, cet appareil peut causer des interférences radio, et si c'est le cas, l'utilisateur peut avoir à prendre des mesures adéquates.

**CONSIDÉRATIONS DES CARACTÉRISTIQUES DE LAMPES À ARC**

1. Après une interruption de courant ou une baisse importante de voltage, les lampes à arc mettent du temps avant de se rallumer. Dans certains cas, la lampe se rallumera automatiquement après s'être refroidie. Cela dépend de la manière dont le système est réglé pour le statut de mise en marche de la lampe (L ON/ LOFF).
2. La position Brûler est Universelle.

## Aviso sobre Seguridad

Es muy importante leer TODA la información e instrucciones sobre seguridad que se indica en este manual así como en los documentos adjuntos antes de instalar y operar los productos descritos. Se debe prestar atención a todos los avisos y advertencias durante la instalación y uso de este producto.

Los símbolos de seguridad usados en este manual son los siguientes:



**CUIDADO**, indica posibles daños al producto.



**ADVERTENCIA**, indica posibles lesiones o muerte a las personas.

LA INFORMACIÓN GENERAL RELACIONADA A LA PROTECCIÓN CONTRA GOLPES DE CORRIENTE ELÉCTRICA, INCENDIO, EXPOSICIÓN EXCESIVA A RADIACIÓN ULTRA VIOLETA Y LESIONES A LAS PERSONAS SE PUEDE ENCONTRAR SEGUIDAMENTE:

### **ADVERTENCIA:**

#### **INSTRUCCIONES PARA PROTECCIÓN CONTINUA CONTRA INCENDIO**

1. Las luminarias VARI\***LITE**® han sido diseñadas para ser usadas solamente con algunas lámparas HID Philips y Osram. Tome nota del tipo de lámpara (MSR400, MSR700HR etc.) antes de reemplazarla. Instalación de otro tipo de lámpara puede ser peligroso.
2. Las luminarias se pueden instalar en cualquier tipo de superficie siempre que se sigan las instrucciones de instalación. Vea las instrucciones detalladas en este manual.
3. Reemplaze los fusibles solamente con los del mismo tipo y especificación.
4. Tome nota de los requerimientos de distancia de materiales combustibles u objetos iluminados para las luminarias VARI\***LITE**®.

### **ADVERTENCIA:**

#### **INSTRUCCIONES PARA PROTECCIÓN CONTINUA CONTRA CHOQUE ELÉCTRICO**

1. Las luminarias VARI\***LITE**® están diseñadas solamente para lugares secos. La exposición a la lluvia o humedad pueden dañar la luminaria.
2. Desconecte la energía antes de dar servicio a cualquier equipo de VARI\***LITE**®.
3. El servicio debe ser realizado solamente por personal calificado.

### **ADVERTENCIA:**

#### **INSTRUCCIONES PARA PROTECCIÓN CONTINUA CONTRA LA EXPOSICIÓN EXCESIVA DE RADIACIÓN ULTRA VIOLETA**

1. Muchas luminarias VARI\***LITE**® usan un tipo de lámpara HID que produce radiación UV. NO mire directamente a la lámpara.

2. Es peligroso operar luminarias sin lentes o protectores. Debe cambiar los protectores, lentes o pantallas ultravioletas si se aprecia que han sido dañadas, y que su efectividad pudiera estar deteriorada. Por ejemplo, si tuvieran rajaduras o raspaduras profundas.

**ADVERTENCIA:**

**INSTRUCCIONES PARA PROTECCIÓN CONTRA LESIONES DE PERSONAS**

1. Las superficies exteriores de las luminarias están calientes durante su operación. Use un equipo de seguridad apropiado (guantes, protección para los ojos, etc.) cuando haga ajustes en el equipo y componentes que están calientes.
2. Cuando las luminarias están en operación la lámpara estará muy caliente. Desconecte la energía y deje que la lámpara se enfríe antes de reemplazarla.
3. Las lámparas de arco emiten radiaciones ultravioletas que pueden ocasionar serias quemaduras a la piel e inflamación a los ojos. Además, las lámparas de arco operan a alta presión y muy alta temperatura. Si la lámpara se rompe, puede existir el peligro de lesiones al personal o un incendio ocasionado por las partículas de la lámpara rota que se caen.
4. Use protección para los ojos cuando vuelve a colocar una lámpara nueva.
5. Use un equipo de seguridad apropiado (guantes, protección para los ojos, etc.) cuando trabaje con lámparas dañadas.
6. Si toca la lámpara con las manos, limpie la lámpara con alcohol isopropyl y con tela sin pelusas antes de instalar o volver a conectar la luminaria.
7. Cambie la lámpara si está dañada o deformada termicamente.

**ADVERTENCIA:**

**INTERFERENCIA RF**

1. Este es un producto de Clase A. En el ambiente de la casa este producto puede ocasionar radiointerferencia, en cuyo caso, el usuario debe tomar las medidas adecuadas.

**CONSIDERACIONES SOBRE LAS CARACTERÍSTICAS DE LA LÁMPARA DE ARCO**

1. Las lámparas de arco requieren un período de tiempo para volver a iluminarse después de una interrupción de energía o de una severa caída de voltaje. En algunos casos, la lámpara se volverá a iluminar en forma automática después que se ha enfriado dependiendo de la configuración del sistema de energía de la lámpara (L ON / L OFF) (L encendida / L apagada).
2. La posición de encendido es universal.



## 安全性に関する注意事項

ここに記載されている製品を取り扱う場合は、まず本マニュアルおよび付属のマニュアルの安全性に関する情報と説明をすべてお読みください。また、実際に本製品を取り付けたり使用する際には、すべての注意事項および警告に留意して作業してください。

本マニュアルでは、以下の安全マークを使用しています。



注意：製品に損傷を与える危険性があります。



警告：人身事故につながる危険性があります。

感電、火災、UV 放射に対する過度の露出、および人身事故を防ぐための一般的な情報については、以下の説明をお読みください。

警告：

火災の発生を防ぐためのヒント

1. VARI\*LITE® 照明器具は、ランプを使用するように設計されています。ランプを交換する際は、ランプの種類（など）を確認するようにしてください。他の種類のランプを取り付けると危険です。
2. 照明器具は、本マニュアルの指示に従って操作するかぎり、どのようなタイプの表面にでも取り付けることができます。詳細については、本マニュアルを参照してください。
3. ヒューズを交換する場合は、同じヒューズ（同じ種類、同じクラス）を使用してください。
4. VARI\*LITE® 照明器具は、可燃性物質または他の光源から必要な距離だけ離して配置してください。

警告：

感電を防ぐためのヒント

1. VARI\*LITE® 照明器具は、乾燥した環境で使用するよう設計されています。雨で濡れる場所や湿気の多い場所に取り付けると、照明器具が傷むことがあります。
2. VARI\*LITE® 照明器具を修理点検する場合は、必ず先に電源を切ってください。
3. 照明器具の修理点検は、資格を持つ技師のみが行うようにしてください。

**警告：**

過度の UV 放射にさらされないためのヒント

1. VARI\**LITE*® 照明器具の多くは、UV 放射を生ずる HID タイプのランプを使用しています。ランプを直視することは避けてください。
2. レンズまたはシールドを使わずに照明器具を点灯すると危険です。レンズ、シールド、紫外線画面は、ひび割れや深い引っかき傷などにより、その効力が損なわれるようになったら取り替えるようにします。

**警告：**

人身事故を防ぐためのヒント

1. 照明器具が点灯しているときは、その外側が熱くなります。熱くなった器具やコンポーネントを取り扱う際には、適切な防具（手袋や保護用眼鏡）を使用してください。
2. 照明器具が点灯しているときは、そのランプが熱くなります。ランプを交換する場合は、照明器具の電源を切り、ランプの温度が下がるまで待ってください。ランプの裏ぶたをあけると、遮断スイッチが働いて、ランプの電源が切れる場合があります。
3. アーク灯は紫外線を放射します。この紫外線によって、ひどい火傷を負ったり、目の炎症を起こすことがあります。さらに、アーク灯は、高圧高温の状態で光を発します。そのため、万一アーク灯が破損すると、飛び散った破片で人身事故や火災が発生する危険性があります。
4. 再点灯するときには、保護用眼鏡を着用してください。
5. 損傷したランプを取り扱う場合は、適切な防具（手袋や保護用眼鏡）を着用してください。
6. 手袋を着用せずに直接手でランプを触った場合は、変性アルコールを使ってランプをきれいにし、糸くずの出ない布で拭いてから照明器具を取り付け、電源を入れるようにします。
7. 傷がついたランプや熱によって変形したランプは取り替えてください。

**警告：**

**RF 干渉**

1. 本製品は Class A に分類されます。本製品は、家庭環境において無線干渉を起こす可能性があります。その場合、使用者は適切な処置を取らなければならないことがあります。

**アーク灯の特性**

1. 停電後または大きな電圧ディップ後にアーク灯を再点灯する場合は、しばらく時間をおくようにしてください。Lamp Power-Up State) システム設定によっては、温度が下がったときに自動的に再点灯される場合があります。
2. アーク灯は点光源です。

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# Introduction

## Disclosure

This technical manual is confidential property of Vari-Lite. All information contained herein is the sole and exclusive property of Vari-Lite and may not be used, disclosed, or reproduced in any manner without the prior written consent of Vari-Lite.



**WARNING:** It is important to read ALL accompanying safety instructions to avoid damage to the product and potential injury to yourself or others.

## About This Manual

This manual provides descriptions, repair procedures, and illustrated parts breakdowns for all configurations of the VL500™ Luminaire. The manual is intended for use by Vari-Lite personnel and by Authorized Vari-Lite Dealers and Service Centers only.

This manual covers the following models:

Model	Part Number	Source	Comments
VL500™ Luminaire	20.9685.0001	Tungsten	120V or 230V*, Standard Color System
VL500™ Luminaire	20.9685.0011	Tungsten	120V or 230V*, Pastel Color System
VL500D™ Wash Luminaire	20.9685.0002	Tungsten	120V, Integral IGBT Dimmer, Standard Color System
VL500D™ Wash Luminaire	20.9685.0012	Tungsten	120V, Integral IGBT Dimmer, Pastel Color System
VL500D™ Wash Luminaire	20.9685.0003	Tungsten	240V, Integral IGBT Dimmer, Standard Color System
VL500D™ Wash Luminaire	20.9685.0013	Tungsten	240V, Integral IGBT Dimmer, Pastel Color System
VL500 80V™ Wash Luminaire	20.9685.0004	Tungsten	80V, Dimmer (100 - 240V Input), Standard Color System
VL500 80V™ Wash Luminaire	20.9685.0014	Tungsten	80V, Dimmer (100 - 240V Input), Pastel Color System
VL500A™ Wash Luminaire	20.9685.0006	Arc	700W, Ballast, Standard Color System
VL500A™ Wash Luminaire	20.9685.0016	Arc	700W, Ballast, Pastel Color System
Note: * = Lamp Type is specified by customer at time of ordering.			



**Note:** Performing maintenance procedures contained in this manual may void the product warranty. Refer to the Vari-Lite Limited Warranty card included in the shipping package for this VARI\***LITE**® product.

## Additional Documentation

A support web page for VL500 series luminaires is available at [www.vari-lite.com](http://www.vari-lite.com) (follow the Support link).



A user's manual is available for installation and operation of the VL500™ wash luminaire. This manual is available in electronic (PDF) format.

- VL500™ Luminaire User's Manual (02.9685.0001).

Technical bulletins concerning the latest changes to VARI\**LITE*® equipment are also available at the web site Technical Support Center. These are documentation supplements that contain procedures for equipment upgrades, retrofits, and additional repairs. Technical bulletins are integrated into the appropriate equipment manuals as those manuals are revised.

---

## Customer Service

### Our Goal

At Vari-Lite, we are committed to providing you the highest quality in customer service. Our comprehensive resources are available to help your business succeed and ensure you get the full benefit of being a Vari-Lite customer. Whether your needs are telephone troubleshooting assistance, product training or technical service, our full-time staff of experienced professionals are on-hand to provide support.

### How to Reach Us

For assistance in your area, call the dealer from which your product(s) were purchased.

*or*

Contact an Authorized Service Center.

*or*

Contact the Vari-Lite Customer Service Department, 9am - 6pm CST Monday through Friday, at the following:

phone: 1.877.VARI-LITE (1-877.827.4548) or 1.214.647.7880

fax: 1.214.647.8038

E-mail: [customerservice@genlytecontrols.com](mailto:customerservice@genlytecontrols.com)

### Additional Resources

For additional resources and documentation, please visit our website at: [www.vari-lite.com](http://www.vari-lite.com) and follow the Support link.



# *CHAPTER 1.*

## Description

This chapter provides an overview of luminaire features, components and operations.

- **Features**
- **Component Descriptions**
- **Principles of Operation**



# Features

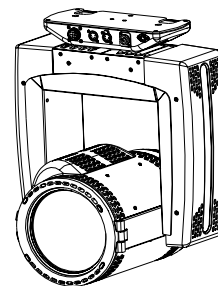
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## Product Features

VL500™ Wash Luminaire have the following features:

### Color

Enhanced DICHRO\*TUNE™ radial color changing mechanism featuring independent magenta, blue, and amber color control capable of smooth, timed color crossfades or changes.



### Pastel (Dichroic Glass) Option:

As an option, all versions of the VL500™ wash luminaire are available with “pastel” or lighter colored magenta and blue color filters. VL500™ wash luminaires fitted with pastel-colored dichroic glass maintain the electrical specifications of the standard version of the VL500™ wash.

### Intensity Control

Tungsten models offer an optional integral dimmer or may be dimmed with a customer supplied external dimmer. Arc models contain an internal mechanical douser.

### Beam Control

In all models, a selection of six, easily interchangeable front lenses provide a variety of beam size and shape options. In the VL500, VL500D, and VL500 80V models an internal, variable diffuser mechanism provides additional beam control. With stipple lens (standard on all models) in place and adjustment of diffusion, beam angle is capable of variance from 8-24°.

### LCD Display

All VL500™ wash luminaires come with a on-board, backlit LCD display for luminaire status, address, set-up, etc.

### Pan and Tilt

Smooth, time-controlled continuous motion by way of a three-phase stepper motor system. Range: Pan - 540°, Tilt - 270°. Pan/Tilt Accuracy: 0.3° resolution.

---

## Model Specific Features

Each individual configuration has the following specific features:

### **VL500 Wash Luminaire (20.9685.0001)**

- 120V (or 240V), 1200W (or 1000W) Tungsten Halogen lamp source.
- Standard color dichroic glass DICHRO\*TUNE™ color system.

### **VL500 Wash Luminaire (20.9685.0011)**

- 120V (or 240V), 1200W (or 1000W) Tungsten Halogen lamp source.
- Pastel color dichroic glass DICHRO\*TUNE™ color system.

### **VL500D Wash Luminaire (20.9685.0002)**

- 120V, 1200W Tungsten Halogen lamp source.
- Standard color dichroic glass DICHRO\*TUNE™ color system.
- 120V on-board IGBT dimmer.

### **VL500D Wash Luminaire (20.9685.0012)**

- 120V, 1200W Tungsten Halogen lamp source.
- Pastel color dichroic glass DICHRO\*TUNE™ color system.
- 120V on-board IGBT dimmer.

### **VL500D Wash Luminaire (20.9685.0003)**

- 240V, 1000W Tungsten Halogen lamp source.
- Standard color dichroic glass DICHRO\*TUNE™ color system.
- 240V on-board IGBT dimmer.

### **VL500D Wash Luminaire (20.9685.0013)**

- 240V, 1000W Tungsten Halogen lamp source.
- Pastel color dichroic glass DICHRO\*TUNE™ color system.
- 240V on-board IGBT dimmer.

### **VL500 80V Wash Luminaire (20.9685.0004)**

- 80V, 1200W Tungsten Halogen lamp source.
- Standard color dichroic glass DICHRO\*TUNE™ color system.
- 80V on-board dimmer.

**VL500 80V Wash Luminaire (20.9685.0014)**

- 80V, 1200W Tungsten Halogen lamp source.
- Pastel color dichroic glass DICHRO\*TUNE™ color system.
- 80V on-board dimmer.

**VL500A Wash Luminaire (20.9685.0006)**

- 700W arc lamp source with external ballast unit.
- Standard color dichroic glass DICHRO\*TUNE™ color system.

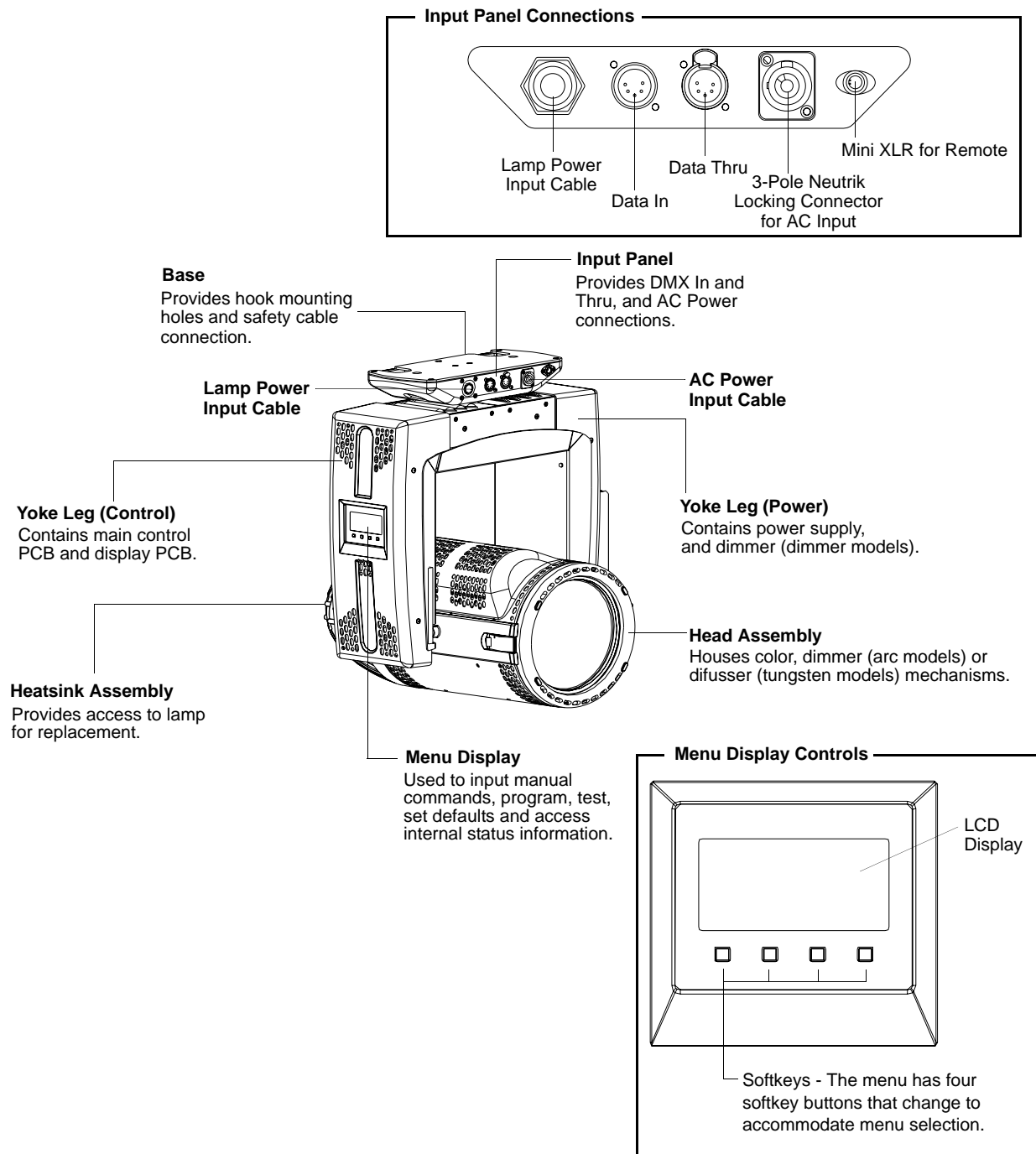
**VL500A Wash Luminaire (20.9685.0016)**

- 700W arc lamp source with external ballast unit.
- Pastel color dichroic glass DICHRO\*TUNE™ color system.

# Component Descriptions

## External Luminaire Components

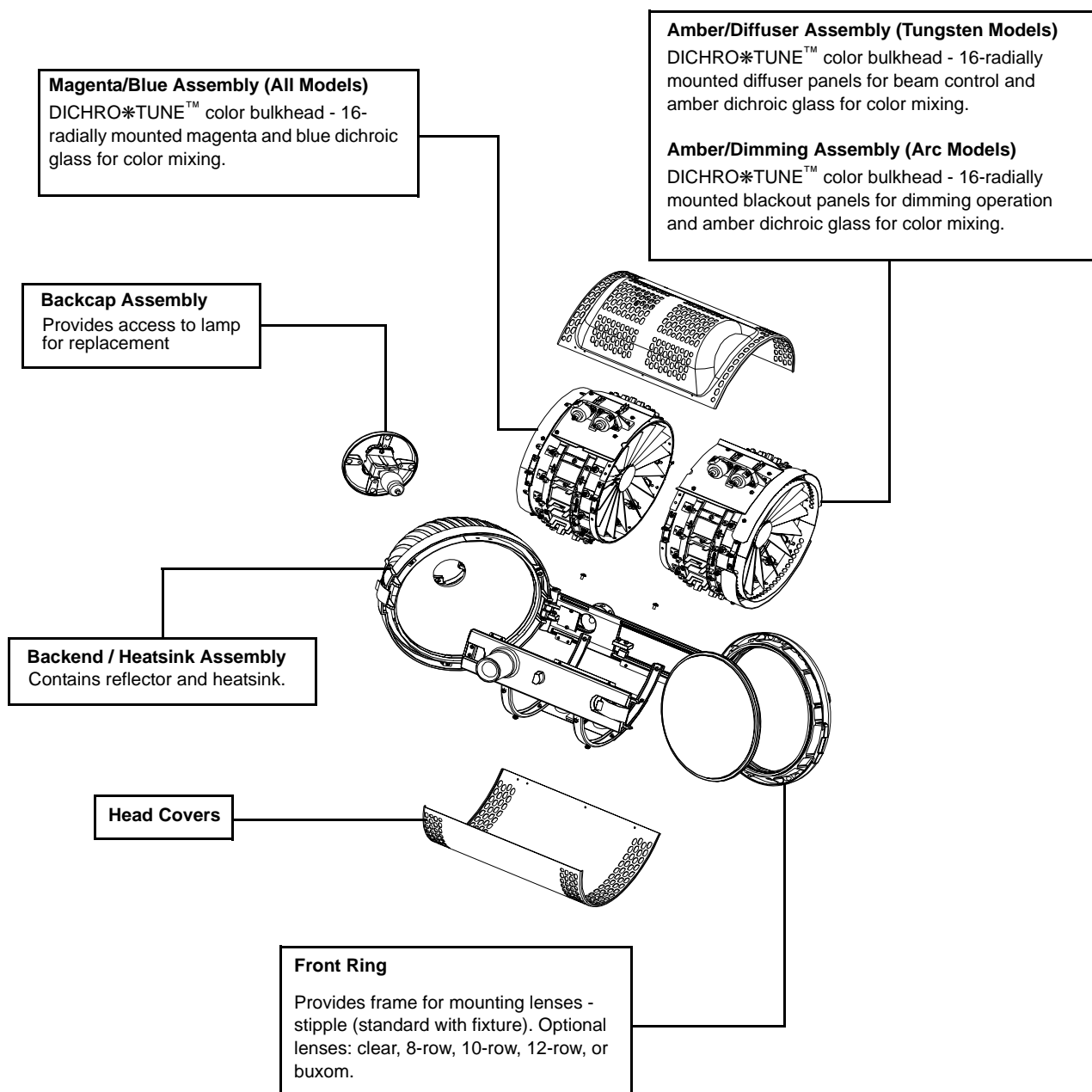
The following illustration shows the external luminaire components and controls.



## Luminaire Internal Head Components

The following illustration shows the major sub-assemblies that are located in the luminaire head assembly.

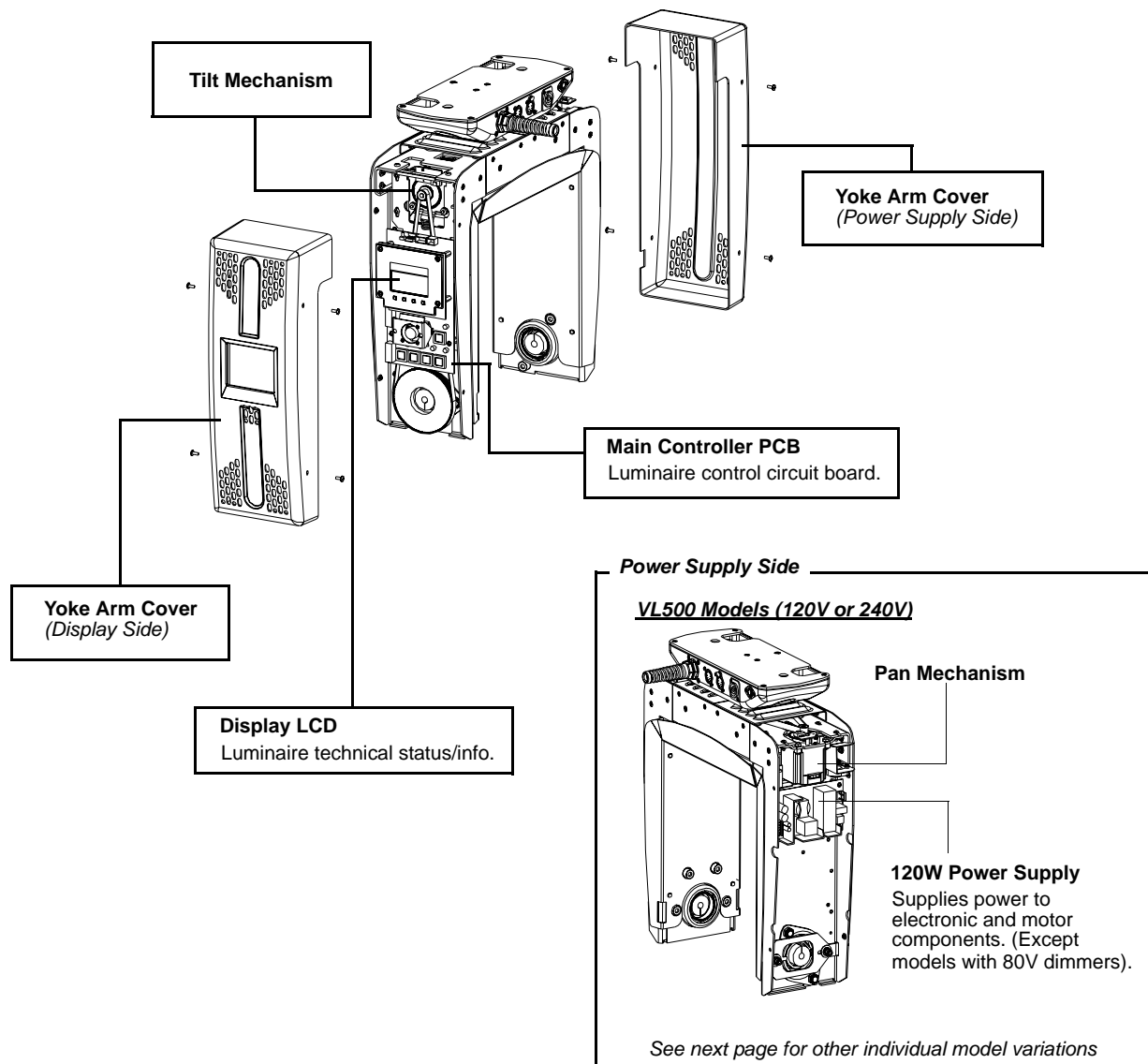
**Note:** Yoke assembly not shown for clarity.



## Luminaire Yoke Components

The following illustration shows the major sub-assemblies that are located in the luminaire yoke assembly.

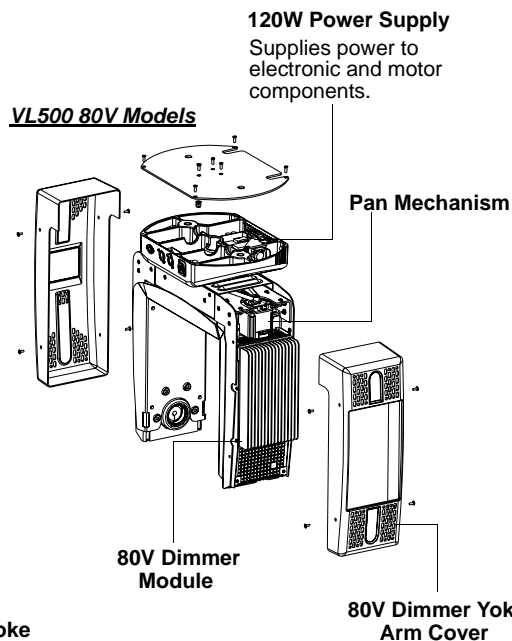
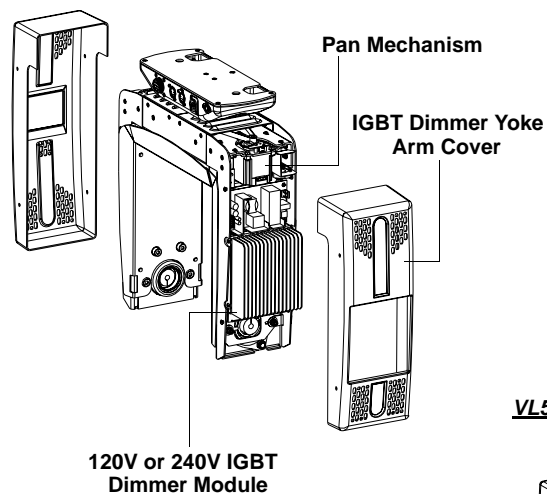
**Note:** Head assembly not shown for clarity.



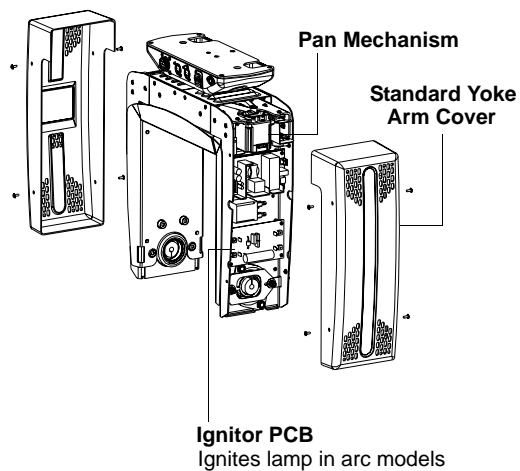
## Luminaire Yoke Components (continued)

The following illustrations show additional model variations for the power supply side of the luminaire yoke assembly.

### VL500D Models (120V or 240V)



### VL500A Models

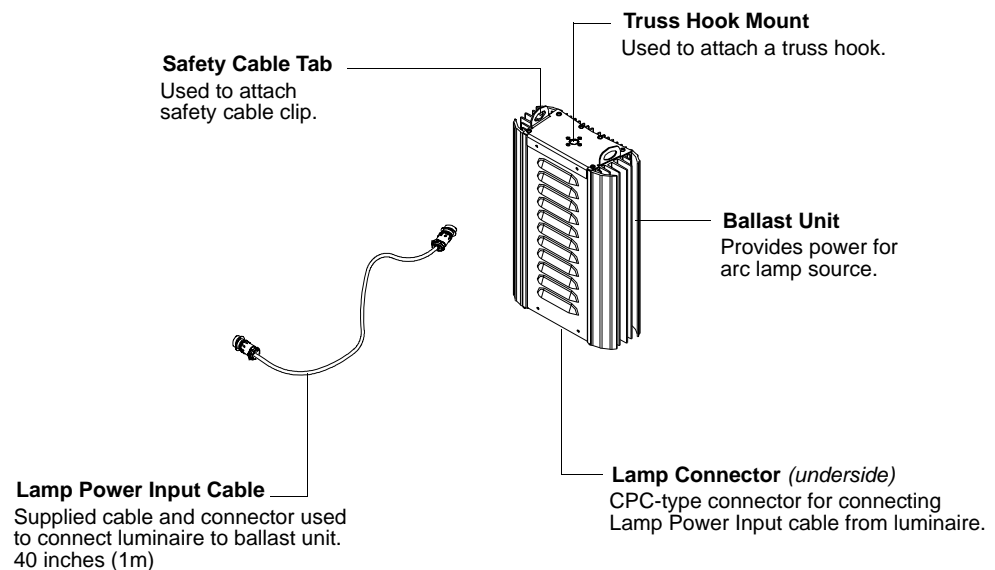




## Arc Ballast Unit

An external ballast unit is included with VL500A arc models. In this case, the lamp power input cable is already connectorized for use with this unit.

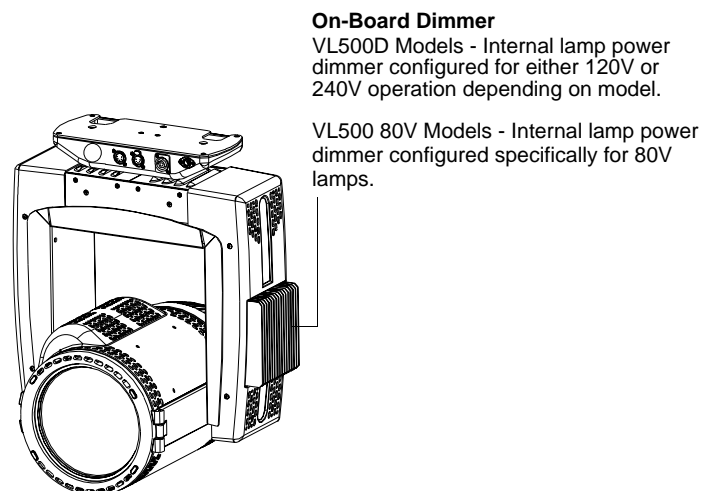
The following illustration shows the external arc ballast components.



**Note:** The Lamp Power Input Cable has conductors for lamp power and ballast control. It is **NOT** compatible with VARI\***LITE** Series 300™ lamp runs.

## Dimmer Models

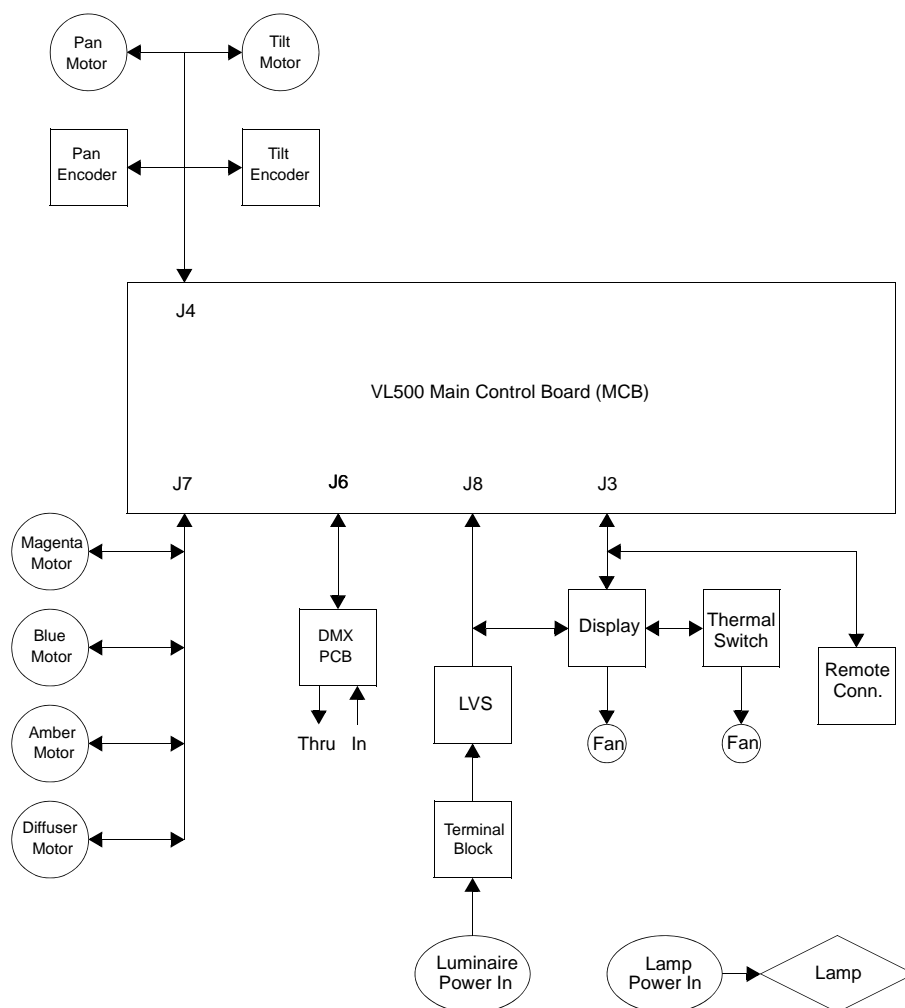
An on-board dimmer is included with VL500D and VL500 80V incandescent dimmer models. The dimmer heatsink is visible on the power-side yoke leg as shown in this illustration.



# Principles of Operation

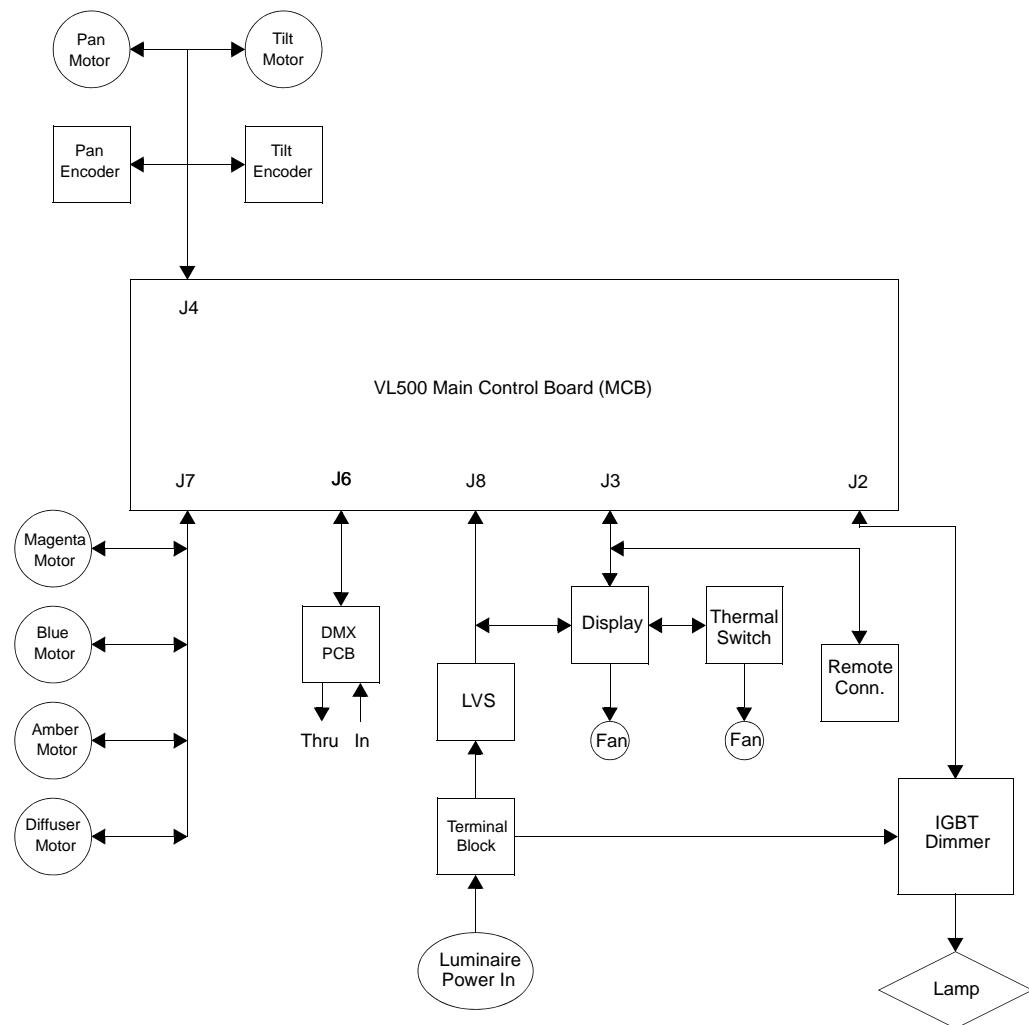
## VL500 Incandescent Luminaires

VL500 Incandescent Block Diagram - Without On-Board IGBT Dimmer (120V or 240V)



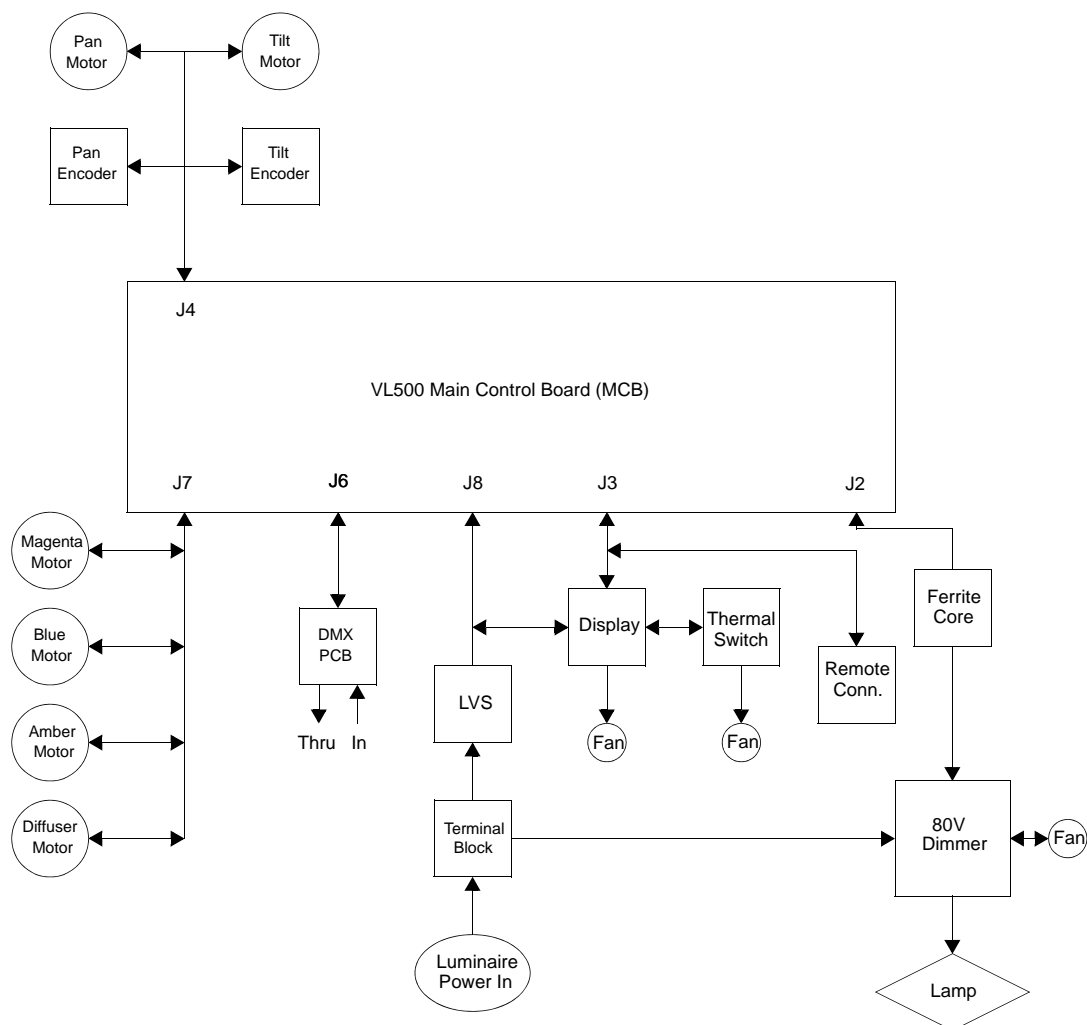
## VL500D Incandescent Luminaires

### VL500D Incandescent Block Diagram - With On-Board IGBT Dimmer (120V or 240V)



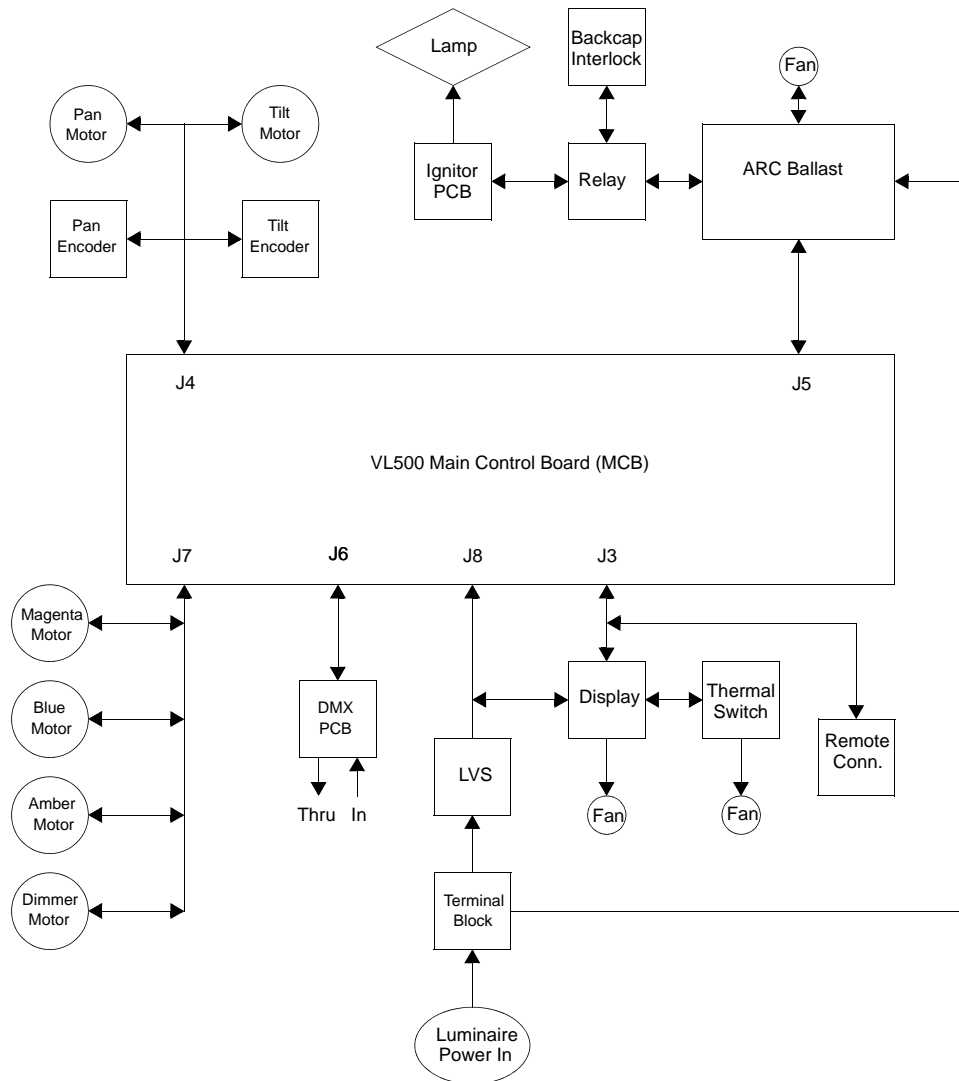
## VL500 80V Incandescent Luminaires

### VL500 80V Incandescent Block Diagram - With On-Board 80V Dimmer



## VL500A Luminaire

### VL500A Arc Block Diagram - With External Arc Ballast



---

## Notes

## CHAPTER 2.

# Maintenance

This chapter contains test, service, and standard maintenance procedures.

- **Testing**
- **Equipment Handling**
- **Maintenance Procedures**



---

---

**WARNING:** All maintenance procedures are to be performed with power removed from the luminaire. Never remove cover or backcap while lamp is in operation.

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**WARNING:** Maintenance, repairs, and adjustments should only be performed by a qualified, factory-trained service technician at an Authorized VARI\***LITE**® Service Center.

---

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# Testing

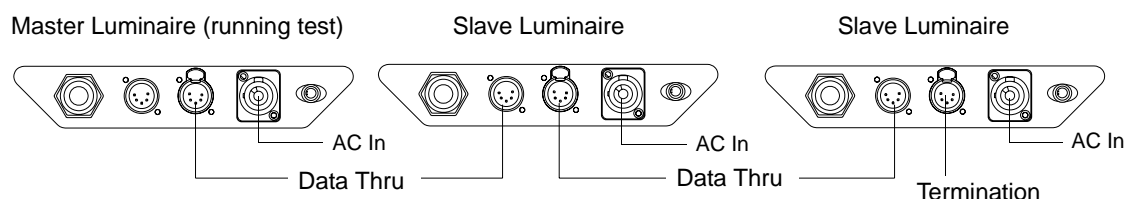
## Running Parameter Tests

The luminaire is capable of running self tests by using the **TEST** menu functions. For complete details and values for each test refer to [“Diagnostic Tests” on page 20](#).

When running tests on multiple luminaires, a DMX termination connector is required at the last luminaire in the chain. (Refer to user’s manual for more information regarding the construction of this connector.)



**Note:** There is a known issue with all versions of code for the VL500™ wash luminaires concerning the “Test” menu options. Issues arose when running a test from one VL500™ wash luminaire to multiple VL500™ wash luminaires (of a different type) across the VL500™ wash platform. To alleviate this, when testing in groups, only test same Lamp Type luminaires (for example: VL500A™ wash [700W arc] with other VL500A™ wash [700W arc] lights, VL500™ wash [120V/1200W tungsten] wash with other VL500™ wash [120V/1200W tungsten] lights, etc.). The issue, described above, does not pose any problems when operating VL500™ wash luminaires during normal operation under DMX control.



**Figure 1: Test Setup**

### To run tests:

- Step 1. Press [Menu].
- Step 2. Press [Up] / [Down] arrows until **Test** appears. Press [Enter].
- Step 3. Use [Up] / [Down] arrows to select a parameter to test. Refer to [“VL500 Test Menu System Chart” on page 21](#) for a complete list of test parameters which can be chosen.
- Step 4. Press [Enter] to run test.
- Step 5. Press [Menu] to stop test at any time.

**Note:** Connected luminaires may not respond on the first action (may delay) of the master luminaire.



### **Movement Disable**

The **Movement** option allows pan and tilt to be disabled so that the luminaire can be placed in any position for testing without movement occurring. In order to regain full control of the luminaire, **Movement** will need to be enabled after testing.

---

**Note:** When using the **Movement** option, pan and tilt will be disabled for all the luminaires that are linked.

---

#### **To set movement option:**

- Step 1. Press [Menu].
- Step 2. Press [Up] / [Down] arrows until **Config** appears. Press [Enter].
- Step 3. Press [Up] / [Down] arrows until **Pan/Tilt** appears. Press [Enter].
- Step 4. **Movement** will be displayed. Press [Enter].
- Step 5. Use [Up] / [Down] arrows to select **Enable** or **Disable**. Press [Enter] to select.

---

## Diagnostic Tests

The following diagnostic tests are available in the test menu.

### Test Descriptions

All Seq .....	Tests all functions in sequential order.
Pan/Tilt .....	Tests different pan and tilt movements.
Pan .....	Tests different pan movements.
Tilt .....	Tests different tilt movements.
Dimmer .....	Tests different dimmer moves/operation.
Diffuser .....	Tests diffuser movement.
Cyan .....	Tests Cyan color wheel movements.
Yellow .....	Tests Yellow color wheel movements.
Magenta .....	Tests Magenta color wheel movements.
Encoder .....	Disables pan and tilt and displays encoder value.
Fan .....	Tests fan level (speed 1 to 7, 7 is fastest).
Temperature .....	Displays LVS or MCB temperatures (in °C).

## Test Menu System Chart

The following table shows all the tests that can be performed by accessing the tests via the luminaire's on-board tech display.

**Table 2-1: VL500 Test Menu System Chart**

1st Level	2nd Level	3rd Level	4th Level	5thLevel
<b>Test **</b> <i>System Test</i>	<b>ALL SEQ</b> <i>Sequence Through All Tests</i>	<b>RunTest</b>	Press [Menu] to stop tests	
	<b>Pan/Tilt</b> <i>Pan/Tilt</i>	<b>RunTest</b>		
	<b>Pan</b> <i>Pan</i>	<b>Pan 1</b>		
		<b>Pan 2</b>		
	<b>Tilt</b> <i>Tilt</i>	<b>Tilt 1</b>		
		<b>Tilt 2</b>		
	<b>Dimmer</b> <i>Dimmer</i>	<b>Dimmer 1</b>		
		<b>Dimmer 2</b>		
		<b>Dimmer 3</b>		
	<b>Diffuser</b> <i>Diffuser</i>	<b>Diffuser 1</b>		
		<b>Diffuser 2</b>		
		<b>Diffuser 3</b>		
	<b>Cyan</b> <i>Cyan Color System</i>	<b>Cyan 1</b>		
		<b>Cyan 2</b>		
		<b>Cyan 3</b>		
	<b>Yellow</b> <i>Yellow Color System</i>	<b>Yellow 1</b>		
		<b>Yellow 2</b>		
		<b>Yellow 3</b>		
	<b>Magenta</b> <i>Magenta Color System</i>	<b>Magenta 1</b>		
		<b>Magenta 2</b>		
		<b>Magenta 3</b>		
	<b>Encoder</b> <i>Encoder (Allows hand movement to check values)</i>	<b>Pan</b>	<b>Value</b> <i>Displays encoder value</i>	
		<b>Tilt</b>	<b>Value</b> <i>Displays encoder value</i>	
	<b>Fans</b> <i>Fans Test</i>	<b>Value 1 (slow) to 7 (fastest)</b>		
	<b>Temp</b> <i>Temperature</i>	<b>LVS Temp</b> <i>Low Voltage Supply temperature</i>	<b>Value</b> <i>Displays temperature in °C</i>	
		<b>MCB Temp</b> <i>Main Control Board temperature</i>	<b>Value</b> <i>Displays temperature in °C</i>	

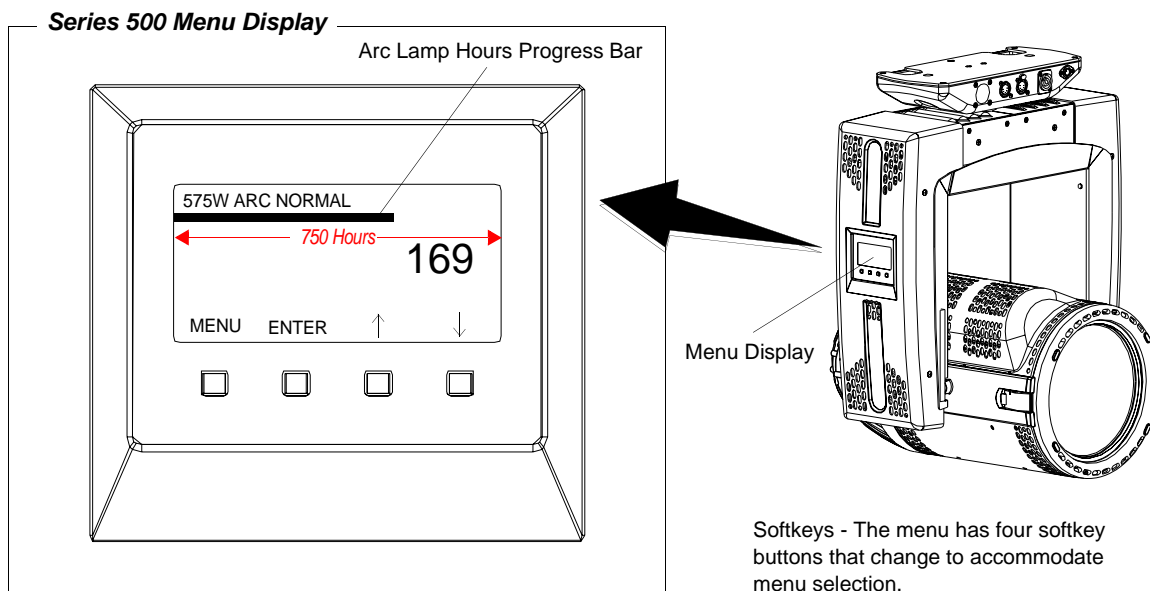
\*\* Refer to [“Diagnostic Tests” on page 20](#) for more information.

## Lamp Hours Progress Bar (Arc Models Only)

For arc models, there is a Lamp Hours Progress Bar representing lamp hours used on the lamp. It is tied directly to the lamp hours within the MCB. The bar, when fully extended across the full width of the menu display, represents 750 lamp hours (as indicated in **Figure 2**). Resetting lamp hours will reset the progress bar. This bar is only for a quick graphical representation of the lamp hours used. For actual lamp hours used, please read the following note.



**Note:** 750 hours is the default setting for the Lamp Hours Progress Bar. However, the scale of the progress bar is user definable by adjusting "Warning Hours" in **[Config]**. When the lamp hours exceed the allotted (or defined) hours, the display will reverse contrast with a warning of "Exceeded Lamp Hours".



**Figure 2: VL500A™ Luminaire Menu Display**



**Note:** To identify the exact number of hours used, users should still refer to the **[Config]** - **[Lamp]** - "Lamp Hours" setting within the menu system.

# Equipment Handling

Below are some basic tips and information on handling VL500 luminaires and their associated components.

---

## Locations/Use



VARI\*LITE luminaires are designed for dry locations only. Exposure to rain or moisture (including, but not limited to, fog machines, misters, etc.) may damage luminaires.

---

## Lamps

### Servicing

- When handling a lamp, hold it by the ceramic base while wearing cotton gloves or finger cots. Do not touch the glass envelope (bulb). If you touch the glass with bare fingers, immediately wipe off any fingerprints with isopropyl alcohol.
- Use care when opening and closing the rear castings (or covers) of luminaires and cleaning reflectors. Any jarring can undo the optical alignment of the lamp.

### Heat

#### On Forced Air Cooled Units

- When lamps are lit, the interiors of the luminaires become very hot. To aid in the airflow circulation within the luminaires, after dousing the lamps, wait ten minutes before removing power to the luminaires. This will provide enough time for the equipment fan to cool off the unit.

#### On Natural Convection Cooled Units

- When lamps are lit, the interior and exterior heatsink of the luminaires becomes very hot. Naturally convection cooled units require longer to fully cool before being handled. Users should wait until the unit is cool to the touch before servicing or handling.

### Lamp Life

- When operating arc lamps, allow luminaires to operate for at least 3 minutes. It takes about 3 minutes for the fill components (mercury and halogen-metal compounds) in the lamp tubes to vaporize completely. If the lamps are switched off earlier than 3 minutes, the fill components are partially vaporized. The inadequately vaporized fill components and the electrode material (tungsten) are deposited in the areas of the lamp tubes that have remained cool. As a result, the lamp tubes blacken prematurely and reduce the service life of the lamps.
- If system will be unattended for more than two hours, luminaire lamps should be doused. Standby mode should not be used for more than two hours.

- When the lamp is struck, the luminaire should be maintained in a horizontal position when not in use.
- For arc lamp luminaires, heads should be tilted horizontal before starting lamps. Lamps generate light by an electrical discharge arc, whereby the electrons from two electrodes excite the fill components to give off light. Because of the alternating current “position”, the electrons are alternately given off by the two electrodes. When a lamp is set in a vertical position, the halogen-metal compounds, which determine the color temperature of the lamp, collect at the top end of the glass envelope. When the lamp is started, color deviations occur since the concentration of halogen compounds is greater around the top electrode than the bottom electrode. In addition, the fill components that are difficult to vaporize congeal around the bottom electrode, thereby reducing lamp life.

---

## Solid State Electronics



### Electrostatic Discharge (ESD)

Electrostatic discharge (ESD) presents a significant danger to solid state electronic components (semiconductor devices and PC board assemblies). Static electricity can build on a variety of common objects (including people) simply by handling or moving. ESD rarely results in immediate failure of a component, but shows up later as an intermittent problem or severely reduces the life of the component. All VARI\**LITE* equipment uses solid state electronics and appropriate precautions to protect them should be observed when servicing.

### Printed Circuit Boards (PCBs)

All PC boards should be shipped in electrostatic shielding bags. When handling PC boards or components, devices such as conductive mats and conductive wrist straps should be used whenever possible. If these precautionary devices are not available, handling of PC boards and components should be avoided.



---

**CAUTION:** Black foam (used to package solid state electronics) should never be used for packing batteries or put in contact with PC boards which contain batteries.

---

# Maintenance Procedures

## Lamp Replacement - Incandescent

### Parts:

71.2529.0120	1EA	1200 WATT TUNGSTEN HALOGEN LAMP, 120 VAC (VL500 AND VL500D MODELS)
71.2526.0230	1 EA	1000 WATT TUNGSTEN HALOGEN LAMP, 230 VAC (VL500 AND VL500D MODELS)
71.9685.0082	1 EA	1200 WATT TUNGSTEN HALOGEN LAMP, 80 VAC (VL500 80V MODELS)

### Tools:

- Cotton gloves or finger cots.



**WARNING:** Remove power from luminaire before performing maintenance.

### To remove and replace incandescent lamp:

Step 1. Remove power from luminaire.



**WARNING:** Lamps will be extremely HOT after operation. Allow lamp to cool before replacing.

Step 2. Set the luminaire head horizontally.

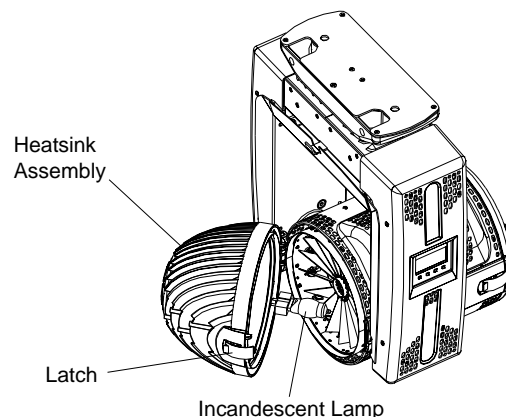
Step 3. Engage service tilt lock to secure luminaire head in horizontal position to access heatsink latch.

Step 4. As shown in **Figure 3**, at heatsink assembly, open latch and swing open back of luminaire.



### CAUTION:

*Ensure lamp is seated straight in socket before re-installing backcap.*



**Figure 3: Lamp Replacement - Incandescent**

---

## Lamp Replacement - Incandescent (continued)

---



**WARNING:** Wear cotton gloves or other covering while servicing lamp. Touching lamp glass with bare fingers will leave oil and may cause the lamp to explode or reduce lamp life. If required, use alcohol and soft, lint-free cloth to thoroughly clean glass portion of lamp.

---

- Step 5. Remove lamp by pulling straight out of socket.
  - Step 6. Carefully clean reflector with soft, lint-free cloth to remove dust and other debris.
  - Step 7. Install lamp by pressing firmly into socket. Ensure lamp is fully seated in socket with base of lamp against socket base.
  - Step 8. Close and re-latch back of luminaire.
  - Step 9. Disengage service tilt lock to allow luminaire head to move freely.
- 



**Note:** For an updated list of approved lamps for all versions of the VL500™ luminaire, please refer to Vari-Lite Technical Notice TN-248 (current version) on the Vari-Lite web site at [www.vari-lite.com](http://www.vari-lite.com).

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## Lamp Replacement - Arc

### Parts:

71.9685.0702      1 EA      MSR700/2, 700 WATT MSR ARC LAMP

### Tools:

- Cotton gloves or finger cots.



**WARNING:** Remove power from luminaire before performing maintenance.

### To remove and replace arc lamp:

Step 1. Remove power from luminaire.



**WARNING:** Lamps will be extremely HOT after operation. Allow lamp to cool before replacing.

Step 2. Set the luminaire head horizontally.

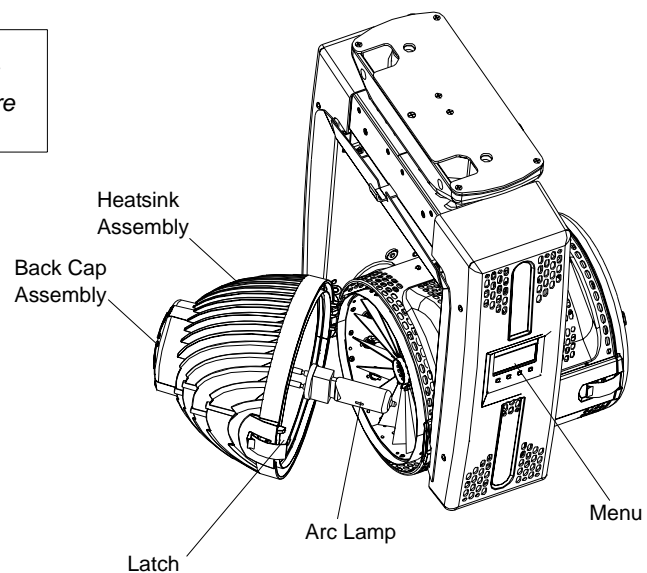
Step 3. Engage service tilt lock to secure luminaire head in horizontal position to access heatsink latch.

Step 4. As shown in **Figure 4**, at heatsink assembly, open latch and swing open back of luminaire.



### CAUTION:

*Ensure lamp is seated straight in socket before re-installing backcap.*



**Figure 4: Installing Arc Lamp in VL500A Models**

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## Lamp Replacement - Arc (continued)

---



**WARNING:** Wear cotton gloves or other covering while servicing lamp. Touching lamp glass with bare fingers will leave oil and may cause the lamp to explode or reduce lamp life. If required, use alcohol and soft, lint-free cloth to thoroughly clean glass portion of lamp.

---

- Step 5. Remove lamp by pulling straight out of socket.
- Step 6. Carefully clean reflector and facing UV glass lens with soft, lint-free cloth to remove dust and other debris.
- Step 7. Install lamp by pressing firmly into socket. Ensure lamp is fully seated in socket with base of lamp against socket base.
- Step 8. Close and re-latch back of luminaire.
- Step 9. Disengage service tilt lock to allow luminaire head to move freely.
- Step 10. Align lamp. (Refer to “[Align Lamp For Maximum Beam Irradiance](#)” on [page 29](#).)
- Step 11. If required, and only on arc models, reset lamp hour counter as follows. (Refer to "Menu Systems Functions" in the VL500 User's Manual for more information.)
  - a. Power up luminaire.
  - b. At Menu Display, press [Menu].
  - c. Press [Up] / [Down] arrows until **CFG** (Configuration) appears. Press [Enter].
  - d. Press [Up] / [Down] arrows until **LAMP** appears. Press [Enter].
  - e. Press [Up] / [Down] arrows to access **RHrs**. Press [Enter] to reset lamp hour and strike counters.



**Note:** For an updated list of approved lamps for all versions of the VL500™ luminaire, please refer to Vari-Lite Technical Notice TN-248 (current version) on the Vari-Lite web site at [www.vari-lite.com](http://www.vari-lite.com).

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## Align Lamp For Maximum Beam Irradiance

After a new lamp is installed in a VL500A luminaire, it will be necessary to align the lamp to optimize the beam.

### Tools:

- #1 Phillips Screwdriver
- 1/4" Nutdriver
- Cotton Gloves or Finger Cots
- Clean, Lint-free (Soft) Cloth



**WARNING:** Remove power from luminaire before performing maintenance.

### To align lamp for maximum beam irradiance:

Step 1. Remove power from luminaire.

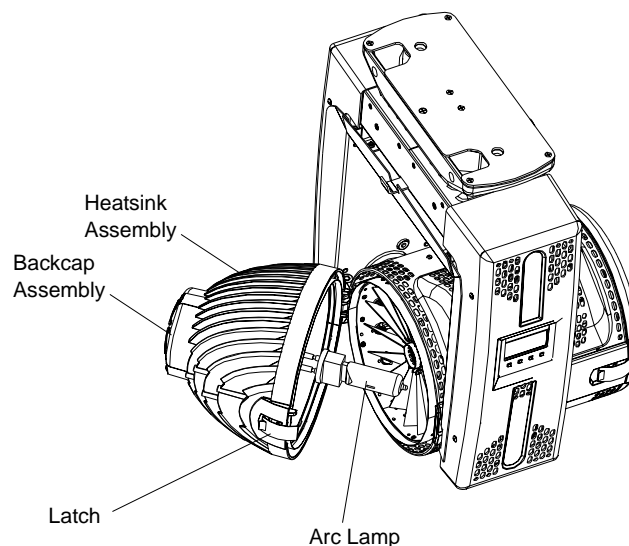


**WARNING:** Lamps will be extremely HOT after operation. Allow lamp to cool before replacing.

Step 2. Set the luminaire head horizontally.

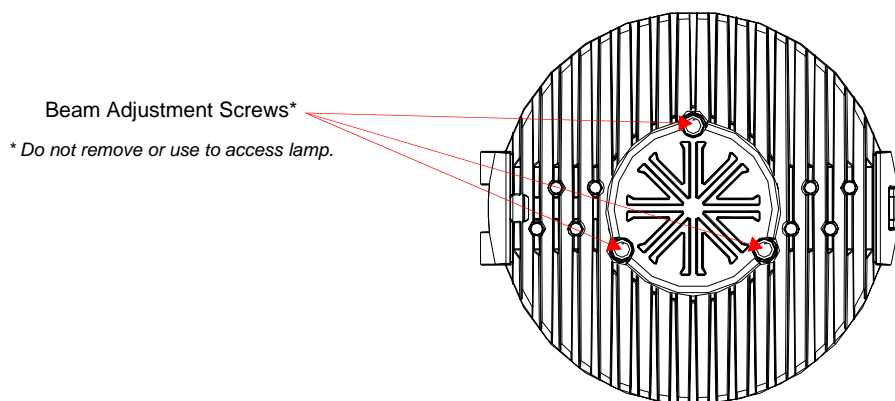
Step 3. Engage service tilt lock to secure luminaire head in horizontal position to access heatsink latch.

Step 4. As shown in **Figure 5**, at heatsink assembly, open latch and swing open back of luminaire.



**Figure 5: Accessing the Reflector in VL500A Fixtures**

- Step 5. Ensure the following:
- Reflector is mounted in center of rear casting and secure enough to prevent it from moving. If not, at three reflector mounting clips, using #1 Phillips screwdriver, remove three 6-32x1/8" PPSS screws. remove light baffle ring and loosen three 1/4" hex standoffs.
  - Center reflector and retighten reflector clips by tightening standoffs. Make sure clips are square so the light baffle ring will fit perfectly over the clips.
  - Reinstall light baffle ring.
  - Lamp is properly and completely seated in the lamp socket in the centered in opening of reflector. Adjust as necessary.
- Step 6. Using soft, lint-free dry cloth, wipe lamp and reflector clean of any dust or fingerprints.
- Step 7. Close and latch heatsink assembly.
- Step 8. Disengage service tilt lock to allow luminaire head to move freely.
- Step 9. Supply power to luminaire.
- Step 10. Disable pan/tilt (if necessary).
- Step 11. Set color to WHITE and intensity to 100%.
- Step 12. Unlatch and swing open front lens ring (this will make hot spot and halo easier to see).
- Step 13. Shine lamp on flat surface 10-20 feet away.
- Step 14. Using lamp adjustment screws (shown in **Figure 6**), adjust lamp.
- Minimize size of halo around hot spot. It will not completely disappear, but should be even and symmetrical all the way around with no large blotches of color at any one point.
  - Maximize spot intensity by making hot spot as small and tightly focused as possible. Hot spot should be centered in halo and in larger brownish circle surrounding it.



**Figure 6: Lamp Alignment Screws**

- Step 15. Close and latch front lens ring.

## Front Glass Replacement

### Parts: *As needed:*

42.9685.0201	1 EA	GLASS, FRONT, CLEAR
42.9685.0207	1 EA	GLASS, FRONT, STIPPLE
42.9685.0203	1 EA	GLASS, FRONT, MED. FLOOD 8-ROW LENT.
42.9685.0206	1 EA	GLASS, FRONT, MED. FLOOD 10-ROW LENT.
42.9685.0204	1 EA	GLASS, FRONT, MED. FLOOD 12-ROW LENT.
42.9685.0205	1 EA	GLASS, FRONT, VERY WIDE FLOOD - BUXOM

### Tools:

- Cotton Gloves or Finger Cots
- Clean, Lint-free (Soft) Cloth

### To remove and replace front glass:



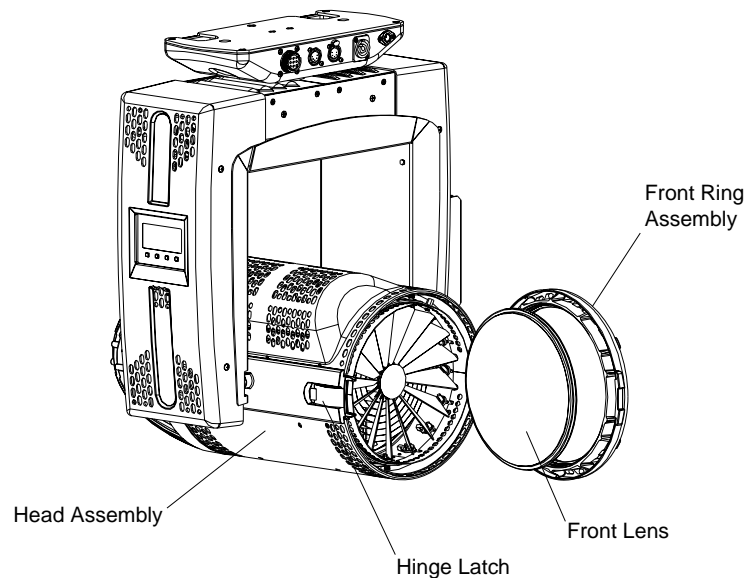
**WARNING:** Remove power from luminaire before performing maintenance.



**Note:** It is often easier to replace the lenses when the fixture is warm. However, use caution when handling a warm fixture as damage to glass components can occur (lamp, reflector, etc.).

Step 1. Remove power from luminaire.

Step 2. At front ring assembly, open latch and swing open. Refer to [Figure 7](#).



**Figure 7: Replacing Front Glass**

## Front Glass Replacement (continued)



**CAUTION:** Wear thick, protective gloves or other protective covering while handling front lens. The lens is extremely fragile and can break if too much force is applied. If dirty, clean with isopropyl alcohol and a soft, lint-free cloth.

Step 3. At front ring assembly, carefully press front side of lens inward with thumbs while holding ring with fingers until glass is free of holder. Remove lens.



**WARNING:** When installing a new or replacement lens in a VL500A™ (ARC) Wash, all lens types must be installed curve out (convex). In tungsten fixtures (VL500™, VL500D™, and VL500 80V™ Wash), Clear and Stipple lenses may be installed curve in (concave) and all Lenticular (8-Row, 10-Row, and 12-Row) and Buxom lenses must be installed curve out (convex).

Step 4. Position new glass in front ring assembly. Be sure glass is fully and properly seated into rubber ring. See [Table 2-2, “Lens Mounting Orientation”](#), for each model.

Incandescent Models (VL500, VL500D, and VL500 80V)	
Clear Lens	<i>Concave or Convex</i>
Stipple Lens	<i>Concave or Convex</i>
8-Row Lens	<i>Convex Only</i>
10-Row Lens	<i>Convex Only</i>
12-Row Lens	<i>Convex Only</i>
Buxom Lens	<i>Convex Only</i>

Arc Models (VL500A)	
Clear Lens	<i>Convex Only</i>
Stipple Lens	<i>Convex Only</i>
8-Row Lens	<i>Convex Only</i>
10-Row Lens	<i>Convex Only</i>
12-Row Lens	<i>Convex Only</i>
Buxom Lens	<i>Convex Only</i>

*Note: Concave = Bubble In / Convex = Bubble Out*

**Table 2-2: Lens Mounting Orientation**

Step 5. Close and latch front ring assembly.

## Magenta/Blue DICHRO\*TUNE Rear Bulkhead Replacement

### Parts:

21.9685.0170	1 EA	ASSY, MAGENTA/BLUE (STANDARD DICHRO*TUNE COLORS - INCANDESCENT)
21.9685.0174	1 EA	ASSY, MAGENTA/BLUE (PASTEL DICHRO*TUNE COLORS - INCANDESCENT)
21.9685.0173	1 EA	ASSY, MAGENTA/BLUE (STANDARD DICHRO*TUNE COLORS - ARC)
21.9685.0175	1 EA	ASSY, MAGENTA/BLUE (PASTEL DICHRO*TUNE COLORS - ARC)

### Tools:

- #2 Phillips Screwdriver

### To remove and replace Magenta/Blue bulkhead assembly:

Step 1. **CLOSE ALL GLASS IN BULKHEADS** - Power up unit and allow all DICHRO\*TUNE glass to calibrate. Once they close, power down unit.

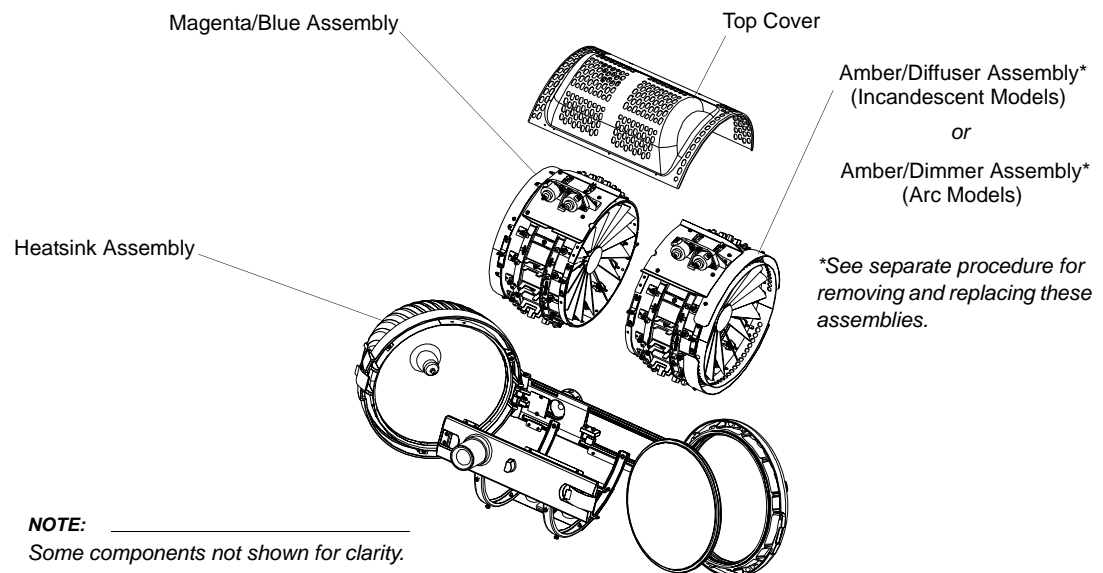


**WARNING:** Remove power from luminaire before performing maintenance.

Step 2. Disconnect luminaire AC input cable from power source.

Step 3. Engage tilt lock so luminaire head is in horizontal position with top cover (one with bubble) facing up (as shown in [Figure 8](#)).

Step 4. As indicated in [Figure 8](#), open heatsink by releasing latch.

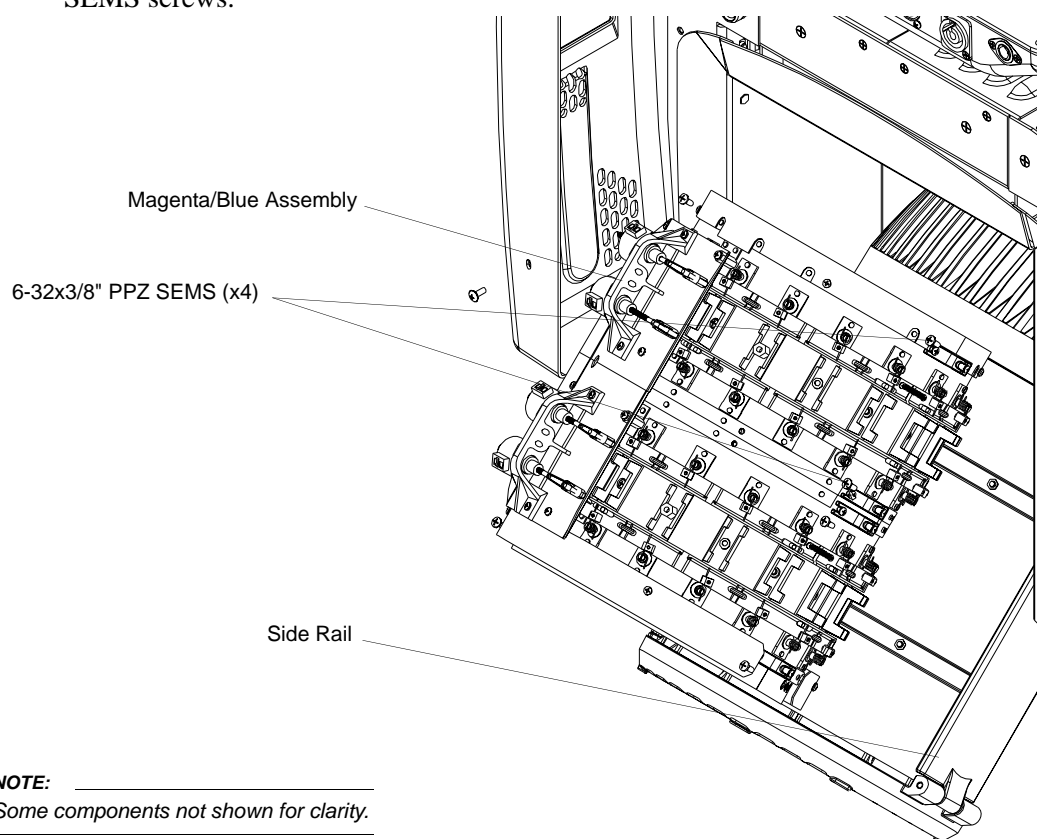


**Figure 8: Magenta/Blue Color Bulkhead**

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## Magenta/Blue DICHRO\*TUNE Rear Bulkhead Replacement (continued)

- Step 5. At top cover, remove two (or four, depending on production date) 6-32x1/4" PPB SEMS screws.
- Step 6. Remove top cover.
- Step 7. Disconnect wiring at two linear actuators on Magenta/Blue DICHRO\*TUNE Bulkhead.
- Step 8. As shown in **Figure 9**, at side rails from top, remove four 6-32x3/8" LG PPZ SEMS screws.



**Figure 9: Magenta/Blue Color Bulkhead**

- Step 9. Carefully lift Magenta/Blue bulkhead out of luminaire head.
- Step 10. Replace by performing steps 2 through 9 in reverse order.



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**Note:** This is also the procedure to convert a standard color bulkhead to pastel color bulkhead or vice versa.

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## Amber/Diffuser (or Dimmer) DICHRO\*TUNE Front Bulkhead Replacement

### Parts:

21.9685.0171	1 EA	ASSY, AMBER/DIFFUSER (INCANDESCENT MODELS)
21.9685.0172	1 EA	ASSY, AMBER/DIMMER (ARC MODELS)

### Tools:

- #2 Phillips Screwdriver

### To remove and replace Amber/Diffuser (or Dimmer) bulkhead assembly:

Step 1. **CLOSE ALL GLASS IN BULKHEADS** - Power up unit and allow all DICHRO\*TUNE glass to calibrate. Once they close, power down unit.

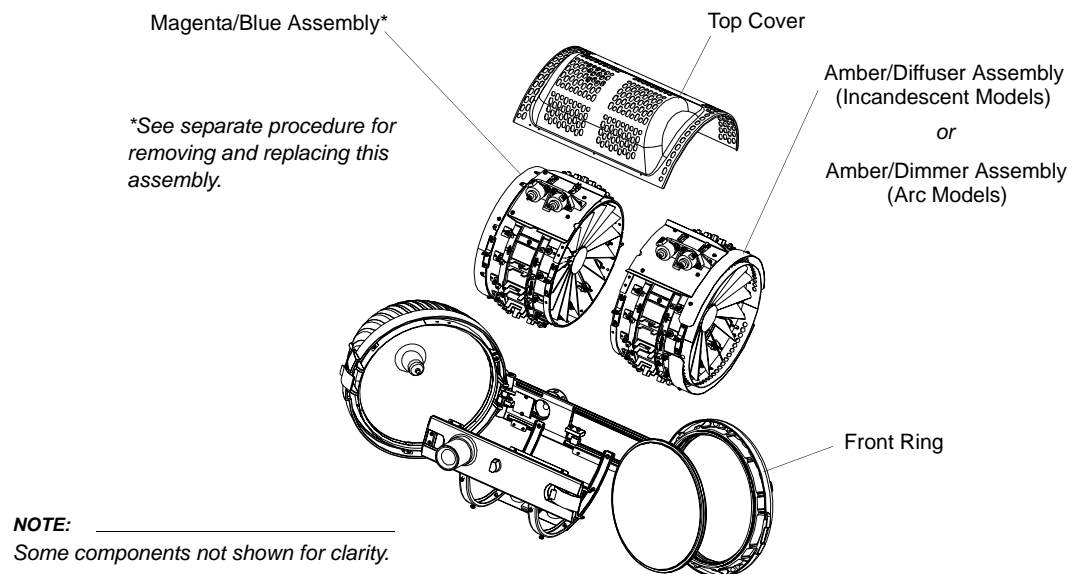


**WARNING:** Remove power from luminaire before performing maintenance.

Step 2. Disconnect luminaire AC input cable from power source.

Step 3. Engage tilt lock so luminaire head is in horizontal position with top cover (one with bubble) facing up (as shown in [Figure 10](#)).

Step 4. As indicated in [Figure 10](#), open front ring by releasing latch.



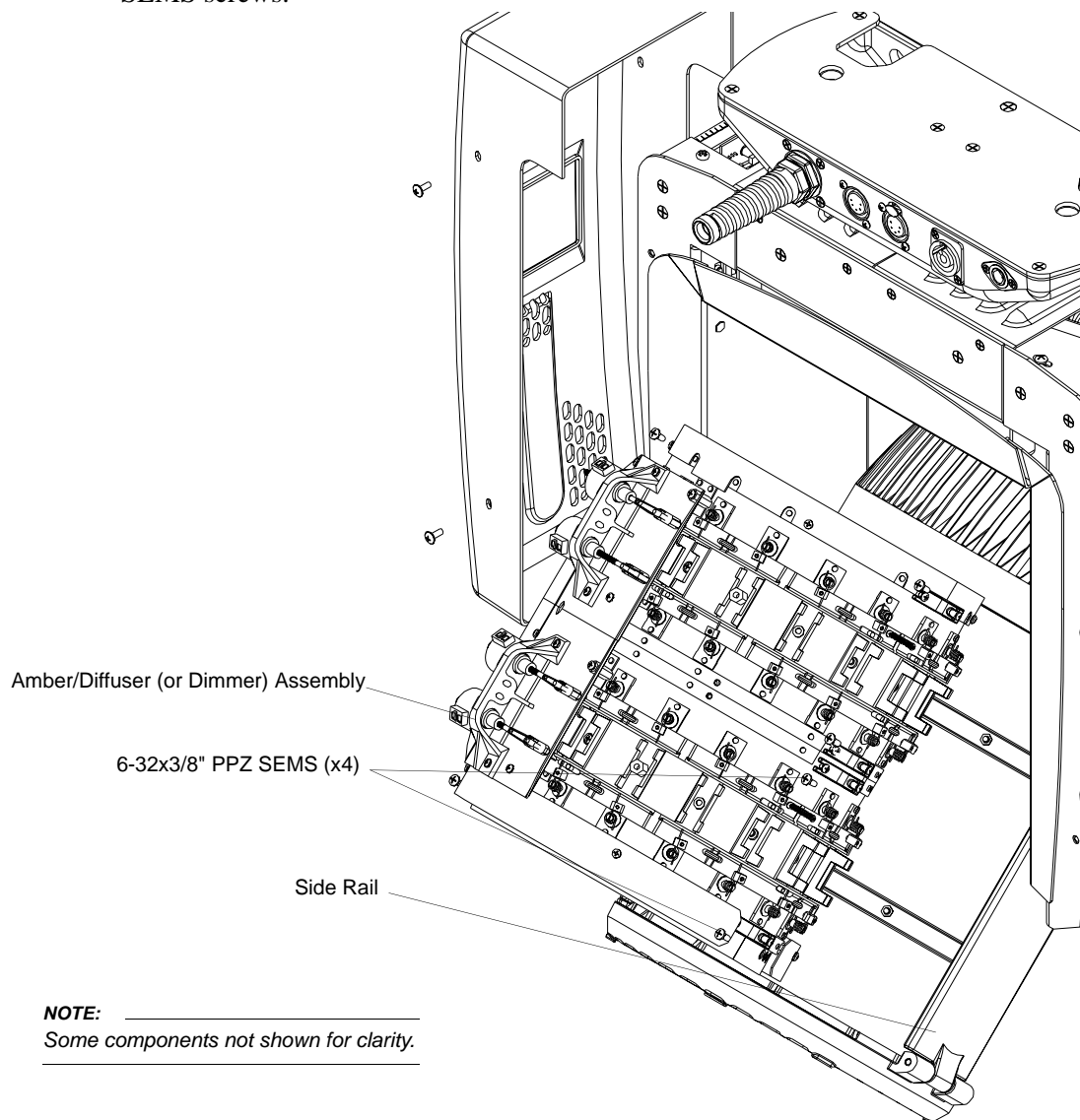
**Figure 10: Amber/Diffuser (or Dimmer) Bulkhead**

Step 5. At top cover, remove two (or four, depending on production date) 6-32x1/4" PPB SEMS screws.

Step 6. Remove top cover.

## Amber/Diffuser (or Dimmer) DICHRO\*TUNE Front Bulkhead Replacement (continued)

- Step 7. Disconnect wiring at two linear actuators on Amber/Diffuser (or Dimmer) DICHRO\*TUNE Front Bulkhead.
- Step 8. As shown in **Figure 11**, at side rails from top, remove four 6-32x3/8" LG PPZ SEMS screws.



**Figure 11: Amber/Diffuser (or Dimmer) Bulkhead**

- Step 9. Carefully lift Amber/Diffuser (or Dimmer) bulkhead out of luminaire head.
- Step 10. Replace by performing steps 2 through 9 in reverse order.

## Color Filter and Diffuser Panel Replacement

### Parts:

22.9685.0122	16 EA	ASSY, FILTER, MAGENTA, DICHRO*TUNE (STD)
22.9685.0123	16 EA	ASSY, FILTER, BLUE, DICHRO*TUNE (STD)
22.9685.0120	16 EA	ASSY, FILTER, MAGENTA, DICHRO*TUNE (PASTEL)
22.9685.0121	16 EA	ASSY, FILTER, BLUE, DICHRO*TUNE (PASTEL)
22.9685.0124	16 EA	ASSY, FILTER, AMBER, DICHRO*TUNE
22.9685.0126	16 EA	ASSY, FILTER, DIFFUSER PANEL

### Tools:

- #1 Phillips screwdriver
- Tweaker Screwdriver
- Cotton Gloves or Finger Cots
- Clean, lint-free (soft) cloth

### To remove and replace color filters or diffuser panels:

Step 1. Ensure glass filter or diffuser panels are in closed position.



**WARNING:** Remove power from luminaire before performing maintenance.

Step 2. Remove power from luminaire.

Step 3. Set the luminaire head horizontally.

Step 4. Engage service tilt lock to secure luminaire head in horizontal position to access heatsink latch.

Step 5. Remove desired bulkhead assembly as follows:

- For Magenta/Blue bulkhead removal, refer to, "[Magenta/Blue DICHRO\\*TUNE Rear Bulkhead Replacement](#)" on page 33. Remove Magenta/Blue bulkhead.
- For Amber/Diffuser bulkhead removal, refer to, "[Amber/Diffuser \(or Dimmer\) DICHRO\\*TUNE Front Bulkhead Replacement](#)" on page 35. Remove Amber/Diffuser bulkhead.



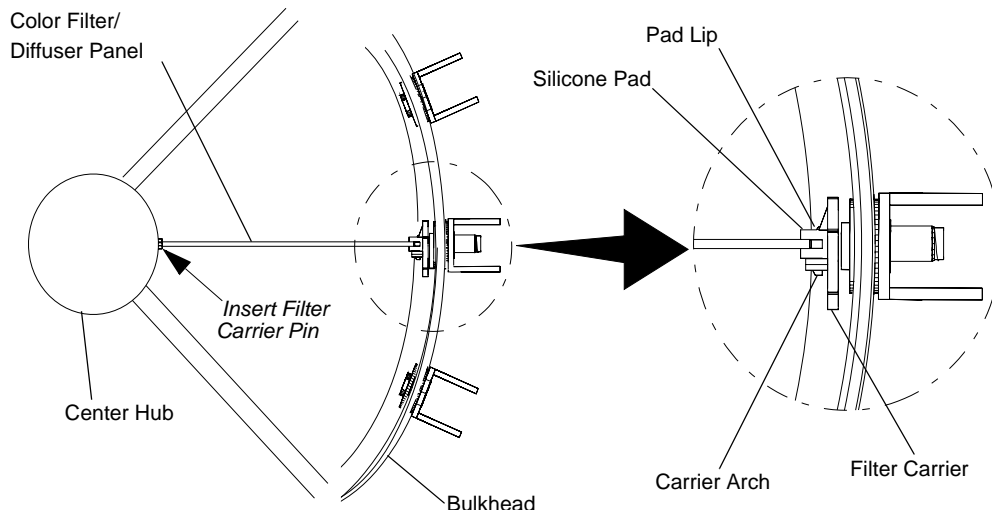
**WARNING:** Wear cotton gloves or other covering while handling filters or diffuser panels. If required, use isopropyl alcohol and soft, lint-free cloth to thoroughly clean glass portion of lamp.



**CAUTION:** Work carefully when removing filter and panels. Filters and panels are secured to silicone pad with UV-cured RTV and pad can become separated. If they become separated, a new filter or panel must be installed since RTV must be UV-cured.

## Color Filter and Diffuser Panel Removal (continued)

- Step 6. Disconnect actuator screw from Swivel Coupler using tweaker screwdriver by carefully prying apart from Drive Ring Link.



**Figure 12: Color Filter and Diffuser Panel Removal**

- Step 7. Open glass filter or diffuser panels.
- Step 8. Remove filter or panel as follows (shown in **Figure 12**):
- At filter or panel, gently push assembly (with silicon pad) in towards center hub (away from carrier) and work end of tweaker screwdriver between silicon pad and carrier.
  - Gently work side of silicone pad (not under carrier arch) free.
  - After side of silicone pad is free from carrier, remove silicone pad from under carrier arch and remove filter or panel.
- Step 9. Insert filter carrier pin (of replacement filter or panel) into center hub as shown in **Figure 12**.
- Step 10. Place side of silicone pad with lip into arch on installed carrier.
- Step 11. Using tweaker screwdriver, gently run screwdriver tip over silicone pad, driving silicone pad into carrier and fully seating silicone pad.
- Step 12. Reassemble luminaire.

## Arc Dimmer Panel Replacement

### Parts:

10.9685.0210    16 EA    DIMMER BLADE (PANEL), VL500

### Tools:

- #1 Phillips screwdriver
- Tweaker Screwdriver
- Cotton Gloves or Finger Cots
- Clean, lint-free (soft) cloth

### To remove and replace dimmer panels:

Step 1. Ensure all glass filters and dimmer panels are in closed position.



**WARNING:** Remove power from luminaire before performing maintenance.

Step 2. Remove power from luminaire.

Step 3. Set the luminaire head horizontally.

Step 4. Engage service tilt lock to secure luminaire head in horizontal position to access heatsink latch.

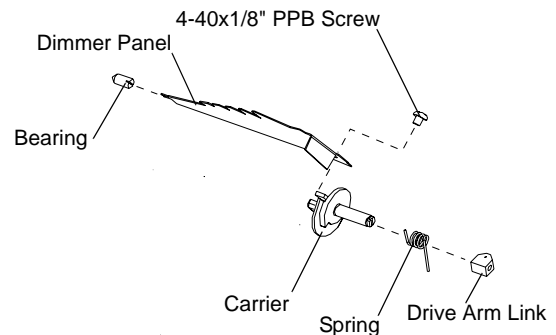
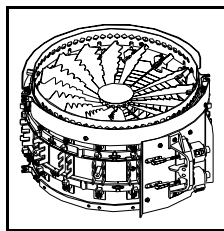
Step 5. Unlatch and swing open front ring.

Step 6. Remove Amber/Diffuser bulkhead by following procedure, "[Amber/Diffuser \(or Dimmer\) DICHRO\\*TUNE Front Bulkhead Replacement](#)" on page 35.

Step 7. Disconnect actuator screw from swivel coupler using tweaker screwdriver by carefully prying apart from Drive Ring Link.

Step 8. Open dimmer panels slightly.

Step 9. Remove one 4-40 x 1/8" PPB screw that attaches dimmer panel to Dimmer Carrier.

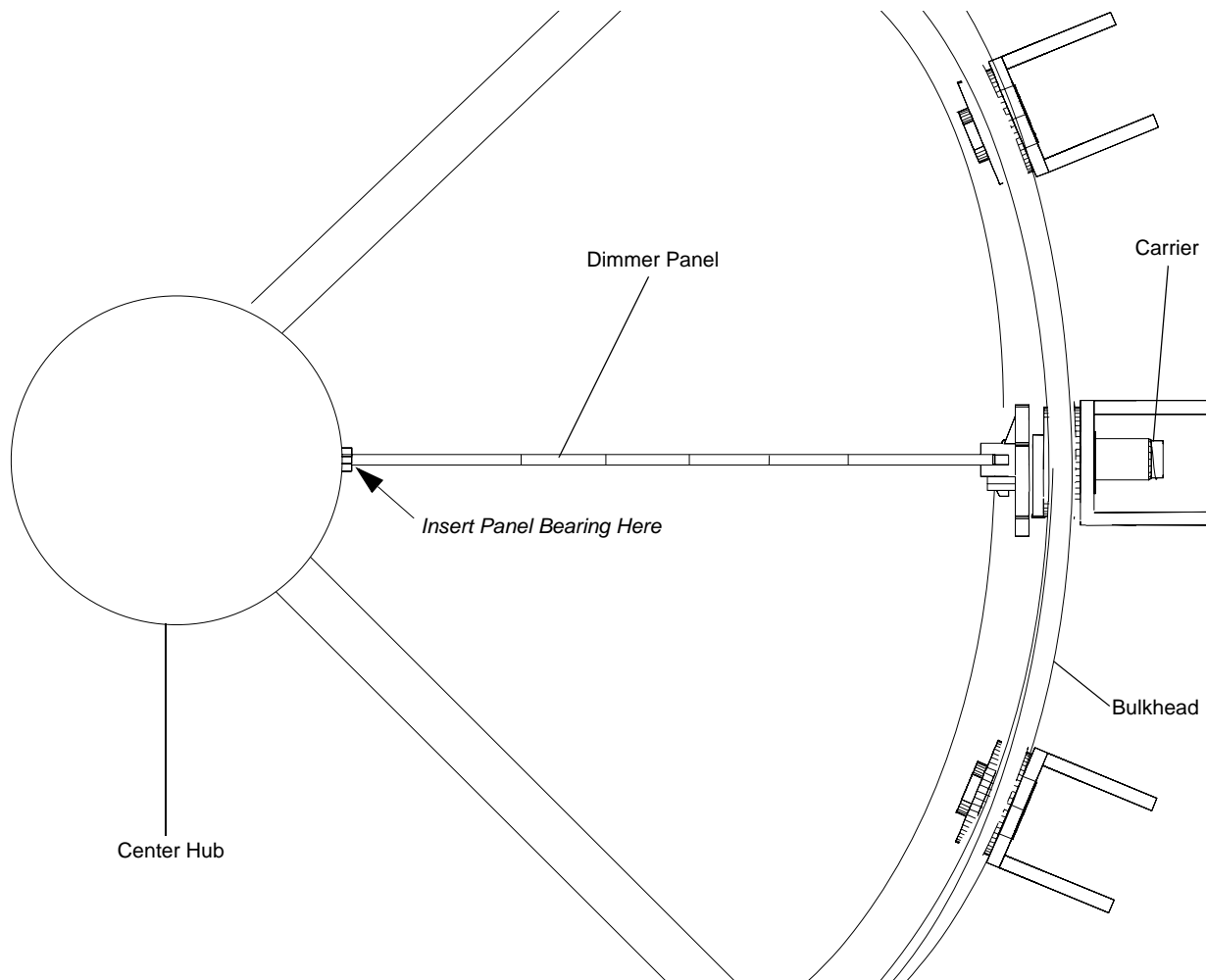


**Figure 13: Dimmer Panel**

Step 10. Remove dimmer panel from center hub

---

## Dimmer Panel Replacement (Continued).



**Figure 14: Dimmer Panel Replacement**

Step 11. Replace by performing steps 3 through 10 in reverse order.

## Linear Actuator Motor Replacement (Magenta/Blue Bulkhead)

### Parts:

44.9685.0230      2 EA      MOTOR, LINEAR, 0.002"/STEP

### Tools:

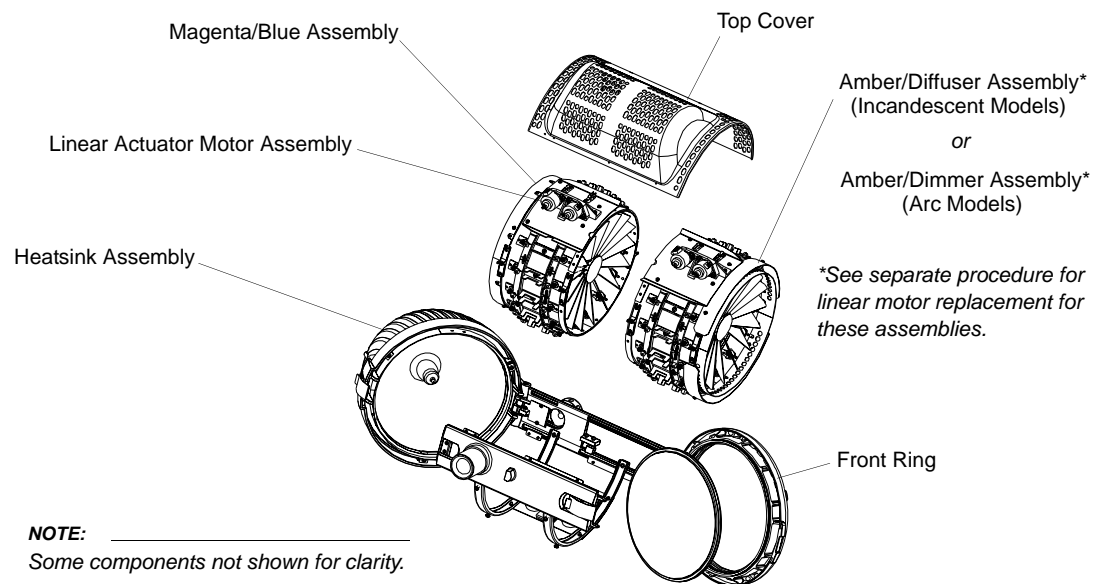
- #1 Phillips Screwdriver
- #2 Phillips Screwdriver
- #2 Slotted Screwdriver



**WARNING:** Remove power from luminaire before performing maintenance.

### To remove and replace linear actuator motor assembly:

- Step 1. Remove power from luminaire.
- Step 2. Set the luminaire head horizontally.
- Step 3. Engage tilt service lock to secure luminaire head in horizontal position to access heatsink latch.



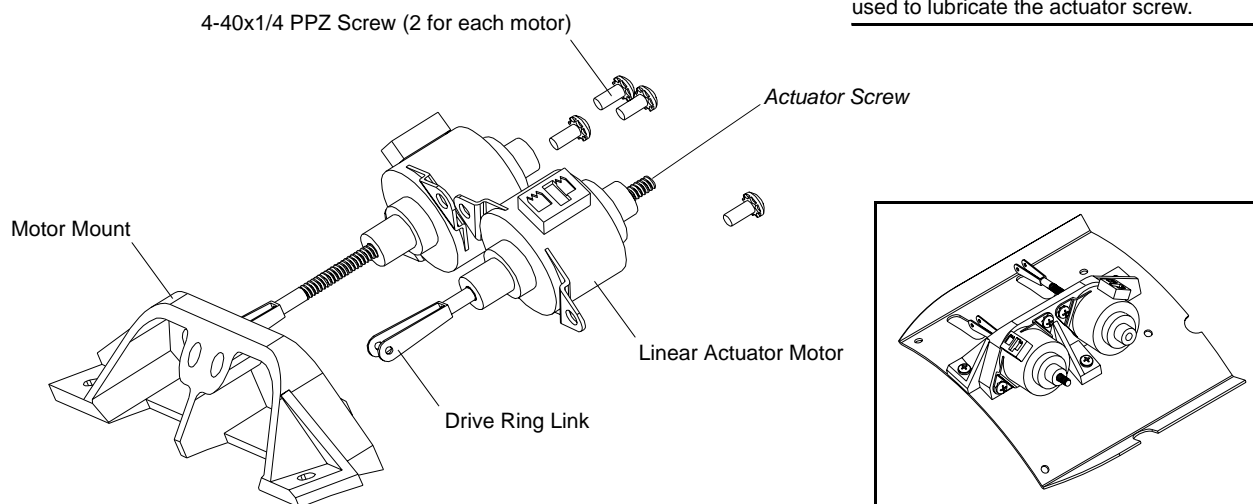
**Figure 15: Magenta/Blue Color Bulkhead - Linear Actuator Motors**

- Step 4. Remove top head cover.



**Note:** Linear actuator motors should be seen with cover removed. If not, flip head position.

- Step 5. At linear actuator motor to be replaced on Magenta/Blue assembly, disconnect wiring at both motors.
- Step 6. Remove linear actuator motor assembly as follows:
- At linear actuator motor assembly, using #1 Phillips screwdriver, remove three 4-40x1/4" PPZ screws and three #4 lock washers securing motor mount to luminaire head.
  - At linear actuator motor assemblies, using #2 slotted screwdriver, disconnect actuator/drive ring links from swivel links on drive rings.
- Step 7. At linear actuator motor, using #1 Phillips screwdriver, remove two 4-40x1/4" PPZ screws securing linear actuator motor to actuator mount, and remove motor. See **Figure 16**.




---

Note: Versilube Silicon Grease (G321) is used to lubricate the actuator screw.

---

**Figure 16: Magenta/Blue Linear Actuator Motor Replacement**

- Step 8. Place linear actuator motor in place on actuator mount.
- Step 9. Re-install two 4-40x1/4" PPZ screws and two #4 lock washers and, using #1 Phillips screwdriver, tighten to secure linear actuator motor and heatsink to actuator mount.
- Step 10. Secure actuator/drive ring link to drive ring swivel link.
- Step 11. Attach wiring.
- Step 12. Re-install top head cover.
- Step 13. Release tilt service lock.




---

**Note:** If mechanism is too noisy, loosen the two 4-40 x 1/4" PPZ screws and align actuator motor to motor mount to lessen noise.

---



## Linear Actuator Motor Replacement (Amber/Diffuser [or Dimmer] Bulkhead)

### Parts:

44.9685.0230 2 EA MOTOR, LINEAR, 0.002"/STEP

### Tools:

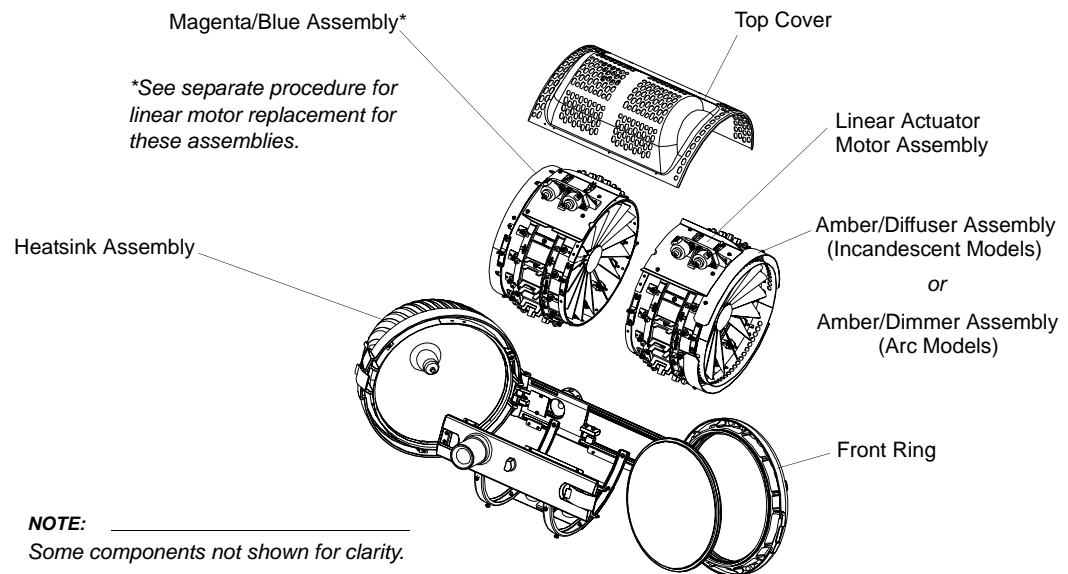
- #1 Phillips Screwdriver
- #2 Phillips Screwdriver
- #2 Slotted Screwdriver



**WARNING:** Remove power from luminaire before performing maintenance.

### To remove and replace linear actuator motor assembly:

- Step 1. Remove power from luminaire.
- Step 2. Set the luminaire head horizontally.
- Step 3. Engage tilt service lock to secure luminaire head in horizontal position to access heatsink latch.



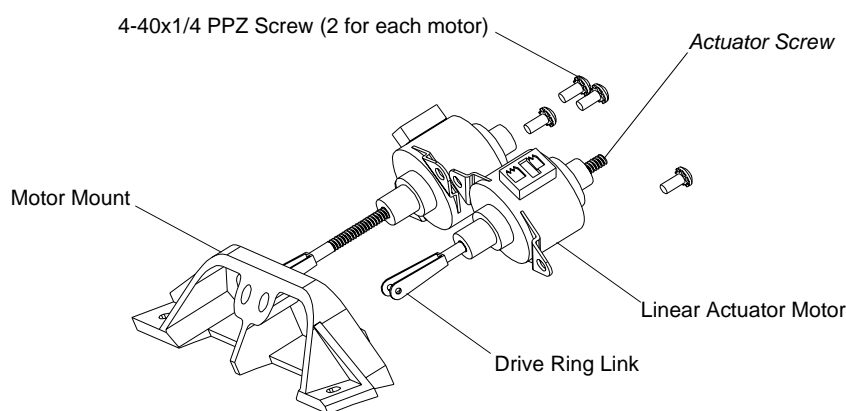
**Figure 17: Amber/Diffuser (or Dimmer) Bulkhead - Linear Actuator Motors**

- Step 4. Remove top head cover.



**Note:** Linear actuator motors should be seen with cover removed. If not, flip head over.

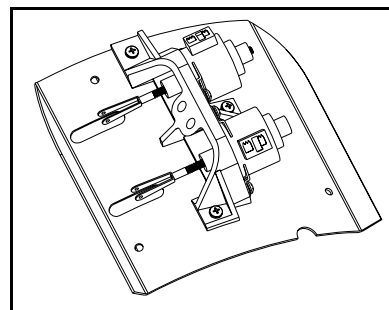
- Step 5. At linear actuator motor to be replaced on Amber/Diffuser (or Dimmer) assembly, disconnect wiring at both motors.
- Step 6. Remove linear actuator motor assembly as follows:
- At linear actuator motor assembly, using #1 Phillips screwdriver, remove three 4-40x1/4" PPZ screws and three #4 lock washers securing motor mount to luminaire head.
  - At linear actuator motor assemblies, using #2 slotted screwdriver, disconnect actuator/drive ring links from swivel links on drive rings.
- Step 7. At linear actuator motor, using #1 Phillips screwdriver, remove two 4-40x1/4" PPZ screws securing linear actuator motor to actuator mount, and remove motor. See **Figure 18**.




---

Note: Versilube Silicon Grease (G321) is used to lubricate the actuator screw.

---



**Figure 18: Amber/Diffuser (or Dimmer) Linear Actuator Motor Replacement**

- Step 8. Place linear actuator motor in place on actuator mount.
- Step 9. Re-install two 4-40x1/4" PPZ screws and two #4 lock washers and, using #1 Phillips screwdriver, tighten to secure linear actuator motor and heatsink to actuator mount.
- Step 10. Secure actuator/drive ring link to drive ring swivel link.
- Step 11. Attach wiring.
- Step 12. Re-install top head cover.
- Step 13. Release tilt service lock.




---

**Note:** If mechanism is too noisy, loosen the two 4-40 x 1/4" PPZ screws and align actuator motor to motor mount to lessen noise.

---

## Incandescent Lamp Socket Assembly (VL500 and VL500D Only) Replacement

### Parts:

23.9685.0780 1 EA ASSY, LAMP SOCKET (VL500 AND VL500D ONLY)

### Tools:

- #2 Phillips Screwdriver
- 1/4" Hex Nutdriver

### To remove and replace lamp socket assembly:

Step 1. **CLOSE ALL GLASS IN BULKHEADS** - Power up unit and allow all DICHRO\*TUNE glass to calibrate. Once they close, power down unit.

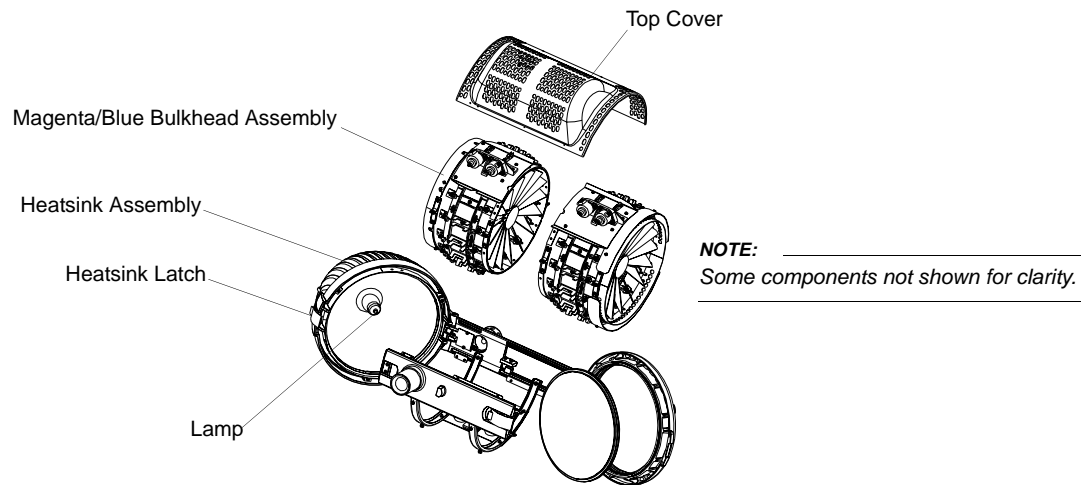


**WARNING:** Remove power from luminaire before performing maintenance.

Step 2. Disconnect luminaire AC input cable from power source.

Step 3. Engage tilt lock so luminaire head is in horizontal position with top cover (one with bubble) facing up (as shown in [Figure 19](#)).

Step 4. Open heatsink by releasing latch.



**Figure 19: Accessing the Lamp Socket in VL500 and VL500D Fixtures**

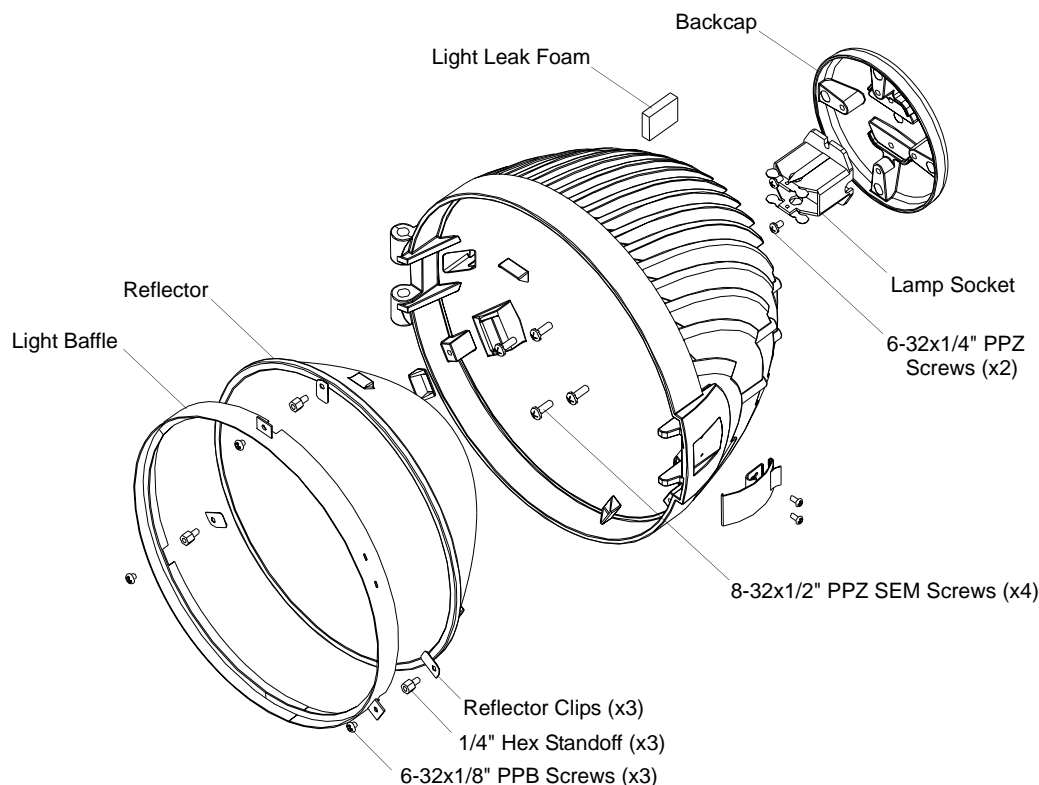
Step 5. At top cover, remove four 6-32x1/4" PPB SEMS screws.

Step 6. Remove top cover.

Step 7. Remove Magenta/Blue Bulkhead Assembly as described in "[Magenta/Blue DICHRO\\*TUNE Rear Bulkhead Replacement](#)" on page 33. Remove Magenta/Blue bulkhead.

Step 8. Using soft cloth to protect lamp, remove lamp from socket.

Step 9. As indicated in **Figure 20**, at light baffle, remove three 6-32x1/8" PPB screws.



**Figure 20: Heatsink Assembly - Lamp Socket Removal (VL500 and VL500D Only)**

- Step 10. Remove light baffle.
- Step 11. Loosen, but do not remove, three 1/4" hex standoffs and turn reflector clips out of way and remove reflector.
- Step 12. Remove yoke arm cover opposite display side by removing four 6-32x3/8" LG PTB screws.
- Step 13. If applicable, remove dimmer. See, "[IGBT Dimmer Replacement - VL500D Only](#)" on [page 63](#) for IGBT dimmer removal.
- Step 14. At inside of side rail, remove two 4-40x1/8" LG PPB screws and remove Lamp Wire Cover.
- Step 15. At support rib closest to tilt tube, remove one 6-32x1/4" LG PPG screw and remove ground strap.
- Step 16. Remove tilt tube plug and pass lamp wires through tilt tube.
- Step 17. Inside heatsink, remove four 8-32x1/2" LG PPZ SEM screws and remove back cap
- Step 18. Remove heatsink light leak foam and pass lamp wire through heatsink.
- Step 19. At socket, remove two 6-32x1/4" LG PPZ SEM screws and remove socket.
- Step 20. Replace by performing Steps 3 through 19 in reverse order.

## Arc Lamp Socket Assembly (VL500A and VL500 80V Only) Replacement

### Parts:

23.9685.0780 1 EA ASSY, LAMP SOCKET (VL500 AND VL500D ONLY)

### Tools:

- #2 Phillips Screwdriver
- 1/4" Hex Nutdriver
- 5/64" Allen Wrench

### To remove and replace lamp socket assembly:

Step 1. **CLOSE ALL GLASS IN BULKHEADS** - Power up unit and allow all DICHRO\*TUNE glass to calibrate. Once they close, power down unit.

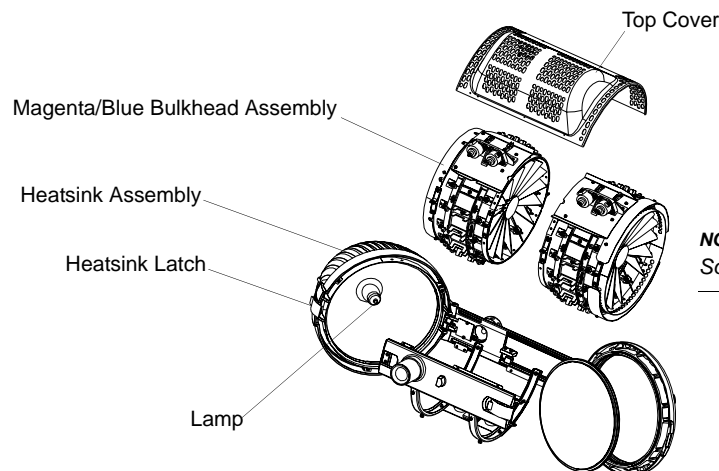


**WARNING:** Remove power from luminaire before performing maintenance.

Step 2. Disconnect luminaire AC input cable from power source.

Step 3. Engage tilt lock so luminaire head is in horizontal position with top cover (one with bubble) facing up (as shown in [Figure 21](#)).

Step 4. Open heatsink by releasing latch.



**NOTE:** Some components not shown for clarity.

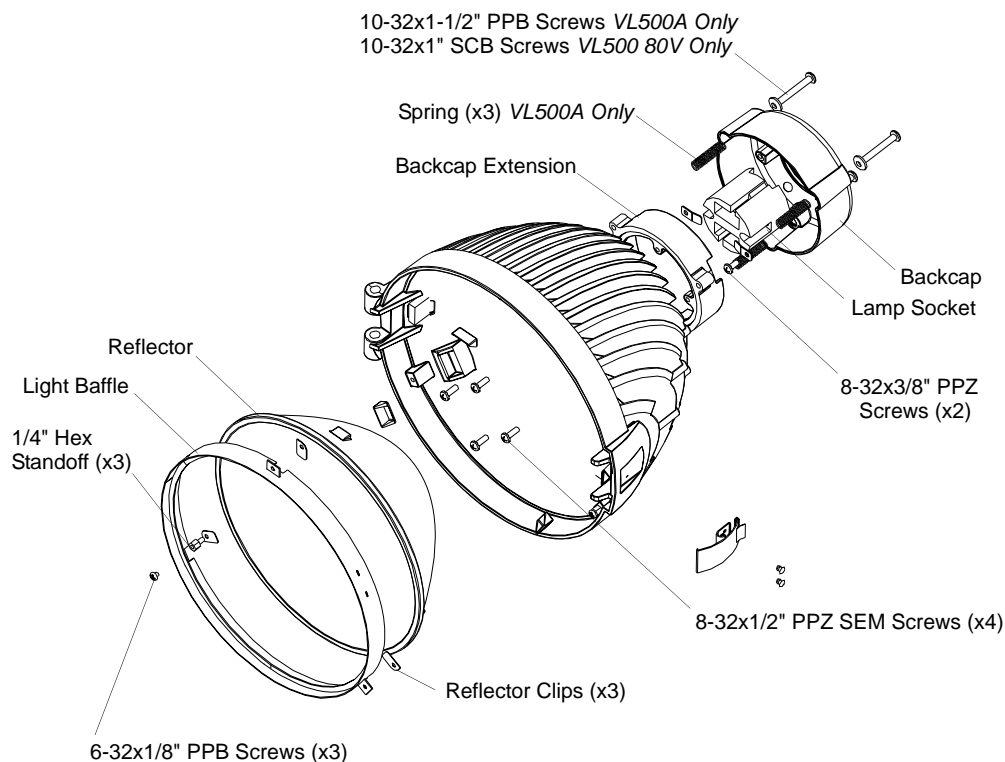
**Figure 21: Accessing the Lamp Socket in VL500A and VL500 80V Fixtures**

Step 5. At top cover, remove two (or four, depending on production date) 6-32x1/4" PPB SEMS screws.

Step 6. Remove top cover.

Step 7. Remove Magenta/Blue Bulkhead Assembly as described in "[Magenta/Blue DICHRO\\*TUNE Rear Bulkhead Replacement](#)" on page 33. Remove Magenta/Blue bulkhead.

- Step 8. Using soft cloth to protect lamp, remove lamp from socket.
- Step 9. As indicated in **Figure 22**, at light baffle, remove three 6-32x1/8" PPB screws.



**Figure 22: Heatsink Assembly - Lamp Socket Removal (VL500A and VL500 80V Only)**

- Step 10. Remove light baffle.
- Step 11. Loosen, but do not remove, three 1/4" hex standoffs and turn reflector clips out of way and remove reflector.
- Step 12. Inside heatsink, remove four 8-32x1/2" LG PPZ SEM screws and remove back cap
- Step 13. Remove lamp alignment screws as follows:
- For VL500A models, at backcap, remove three 10-32x1-1/2" LG PPB screws and springs.
  - For VL500 80V models, at backcap, remove three 10-32x1" LG SCB screws.
- Step 14. Remove backcap extension.
- Step 15. At socket, remove two 8-32x3/8" LG PPZ SEM screws and two socket clips.
- Step 16. Remove socket from backcap.
- Step 17. Using 5/64" Allen wrench, loosen two set-screws and remove lamp wires from socket.
- Step 18. Replace lamp socket by performing Steps 3 through 17 in reverse order.

## Display PCB Replacement

### Parts:

24.9685.0826 1 EA ASSY, VL500 DISPLAY PCB

### Tools:

- 1/4" Hex Nutdriver
- #2 Phillips Screwdriver



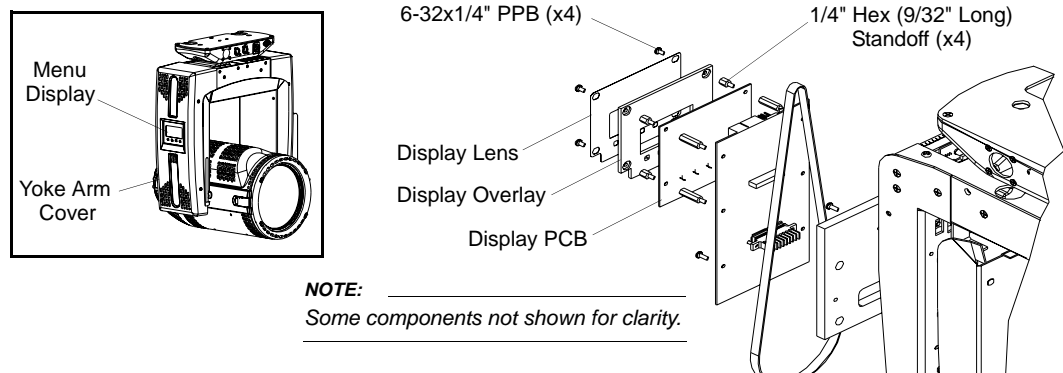
**WARNING:** Remove power from luminaire before performing maintenance.

### To remove and replace display PCB assembly:

Step 1. Remove power from luminaire.

Step 2. Remove display-side yoke arm cover by removing four 6-32x3/8" PTB screws.

Step 3. At display overlay, as indicated in **Figure 23**, remove four 6-32x1/4" PPB screws.



**Figure 23: Display PCB Replacement**

Step 4. Remove display overlay.

Step 5. As indicated in **Figure 23**, remove four 1/4" hex (9/32" long) standoffs.

Step 6. At display PCB, disconnect the following wiring connections:

- 4-position MTA connector (24V DC)
- 2-position connector (MCB Fan)
- 4-position connector (LVS Fan/Temperature Switch)
- 6-position connector (Display Communication)

Step 7. Remove Display PCB.

Step 8. Replace by performing Steps 2 through 7 in reverse order.



**Note:** Orientation of display overlay - the overlay should be black paper side out to allow proper and free button travel.

---

## Main Control PCB/Fan Assembly Replacement

### Parts:

21.9685.0731      1 EA      ASSY, VL500 MAIN CONTROL PCB/FAN

### Tools:

- 1/4" Hex Nutdriver
- #2 Phillips Screwdriver



**WARNING:** Remove power from luminaire before performing maintenance.

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---

### To remove and replace main control PCB/fan assembly:

- Step 1. Remove power from luminaire.
- Step 2. Remove display-side yoke arm cover by removing four 6-32x3/8" PTB screws.
- Step 3. Remove Display PCB as described in, "[Display PCB Replacement](#)" on page 49.
- Step 4. At Main Control PCB/Fan Assembly, disconnect the following wiring connections:
- a. Pan/Tilt wiring harness
  - b. Head motor wiring harness
  - c. 3-position connector (Dimmer communications - VL500D and VL500 80V models only)
  - d. 10-position AMP connector (Display Communications)
  - e. 4-position connector (DMX communications)\*



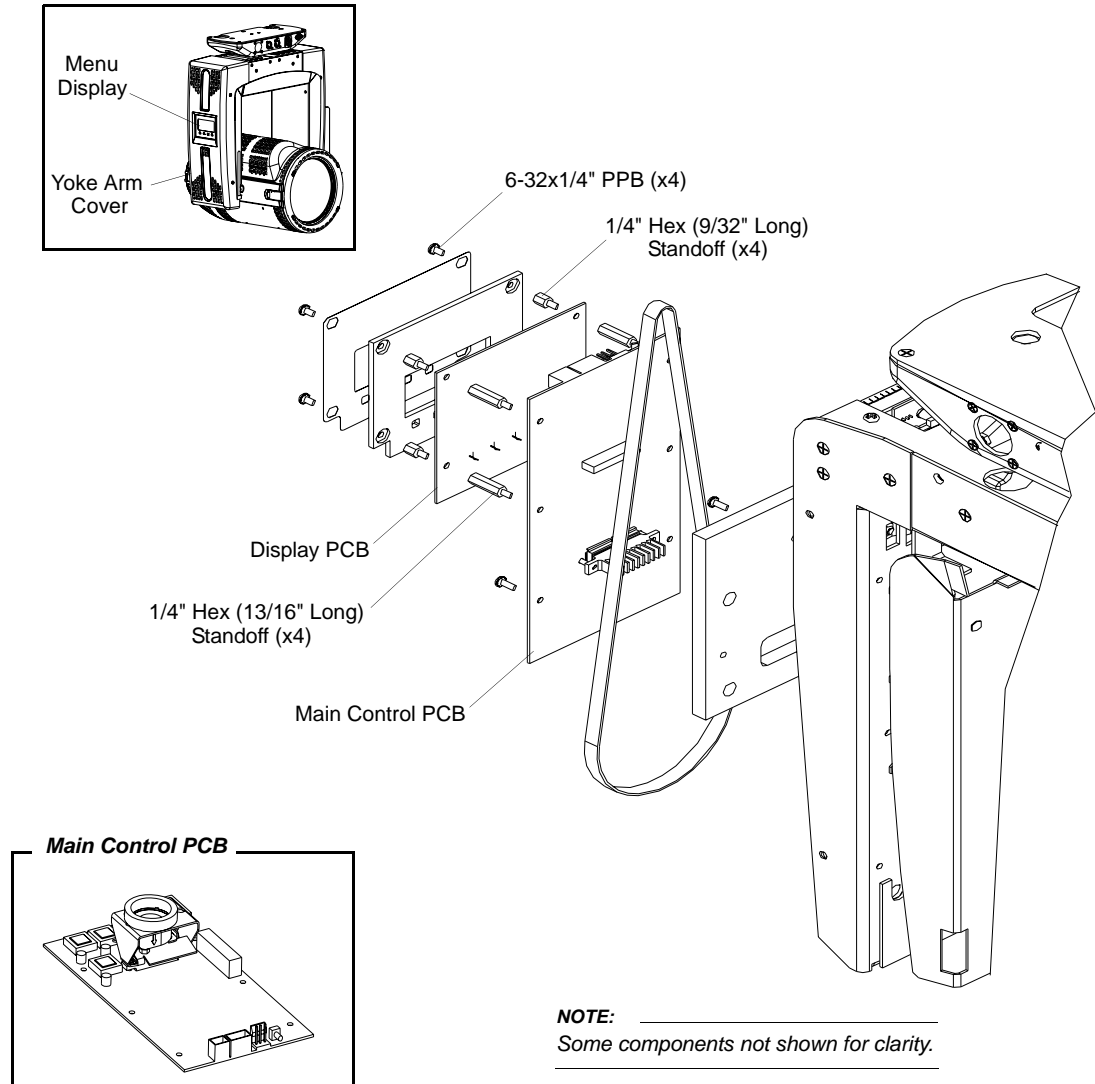
**CAUTION:** \*This connector is similar to the connector for the LVS Fan/Temperature Switch connector used on the Display PCB. It is imperative that you do not confuse the two.

---

- f. 3-position connector (24V DC)
  - g. 5-position connector (Ballast communications - VL500A models only)
- Step 5. Remove two 6-32x3/8" PPZ screws (one has a ground wire terminal attached).
- Step 6. Remove four 1/4" hex (13/16" long) standoffs as indicated in [Figure 24](#).



## Main Control PCB/Fan Assembly Replacement (continued)



**Figure 24: Main Control PCB/Fan Replacement**

- Step 7. Remove Main Control PCB/Fan Assembly.
- Step 8. Replace Main Control PCB/Fan Assembly by following Steps 2 through 7 in reverse order.
- Step 9. Configure Main Control PCB using menus as needed.

---

## Low Voltage Supply (LVS) Replacement (VL500/ VL500D/VL500A Only)

### Parts:

69.3178.0121      1 EA      POWER SUPPLY, 120W, 24VDC

### Tools:

- #2 Phillips Screwdriver



**WARNING:** Remove power from luminaire before performing maintenance.

---

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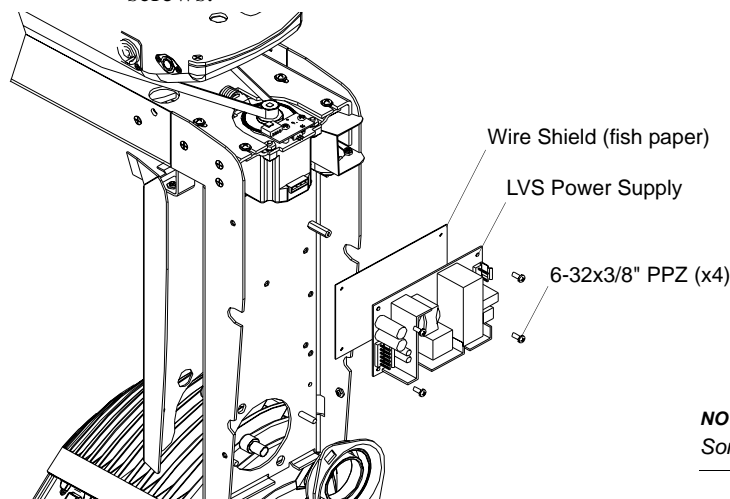
**WARNING:** With power applied, LIVE AC is present at heatsink. Do not touch when unit is powered.

---

---

### To remove and replace LVS:

- Step 1. Remove power from luminaire.
- Step 2. Remove yoke arm cover opposite display side by removing four 6-32x3/8" PTB screws.



**NOTE:** \_\_\_\_\_  
Some components not shown for clarity.

**Figure 25: LVS Replacement (VL500/VL500D/VL500A Only)**

- Step 3. Disconnect the following wiring connections:
- a. 3-position connector (AC Input)
  - b. 6-position MTA connector (DC Output)
- Step 4. As shown in **Figure 25**, remove four 6-32x3/8" PPZ, SEMS screws.
- Step 5. Remove LVS. Note fish paper (Wire Shield) behind LVS, save and reuse with replacement LVS.
- Step 6. Replace by performing steps 2 through 5 in reverse order.

## Low Voltage Supply (LVS) Temperature PCB Replacement (VL500/VL500D/VL500A Only)

### Parts:

24.9685.0740 1 EA TEMPERATURE BOARD, LVS

### Tools:

- #2 Phillips Screwdriver



**WARNING:** Remove power from luminaire before performing maintenance.

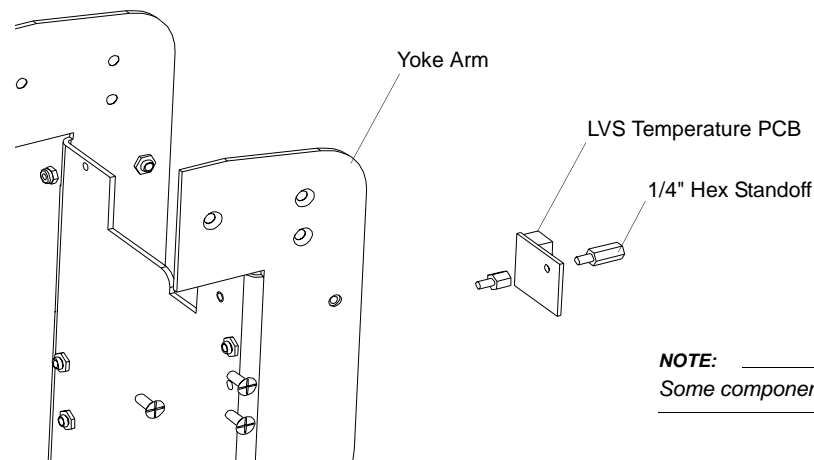


**WARNING:** With power applied, LIVE AC is present at heatsink. Do not touch when unit is powered.

### To remove and replace LVS temperature PCB:

Step 1. Remove power from luminaire.

Step 2. Remove LVS by following procedure, “[Low Voltage Supply \(LVS\) Replacement \(VL500/VL500D/VL500A Only\)](#)” on page 52.



**Figure 26: LVS Temperature PCB Replacement (VL500/VL500D/VL500A Only)**

Step 3. Disconnect the following wiring connections on PCB:

- 2-position connector (LVS Fan)
- 4-position connector (LVS Fan from MCB)

Step 4. As shown in [Figure 26](#), remove one 1/4" hex standoff.

Step 5. Remove LVS Temperature PCB.

Step 6. Replace by performing steps 2 through 5 in reverse order.

## Low Voltage Supply (LVS) Replacement (VL500 80V Only)

### Parts:

69.3178.0121      1 EA      POWER SUPPLY, 120W, 24VDC

### Tools:

- #2 Phillips Screwdriver



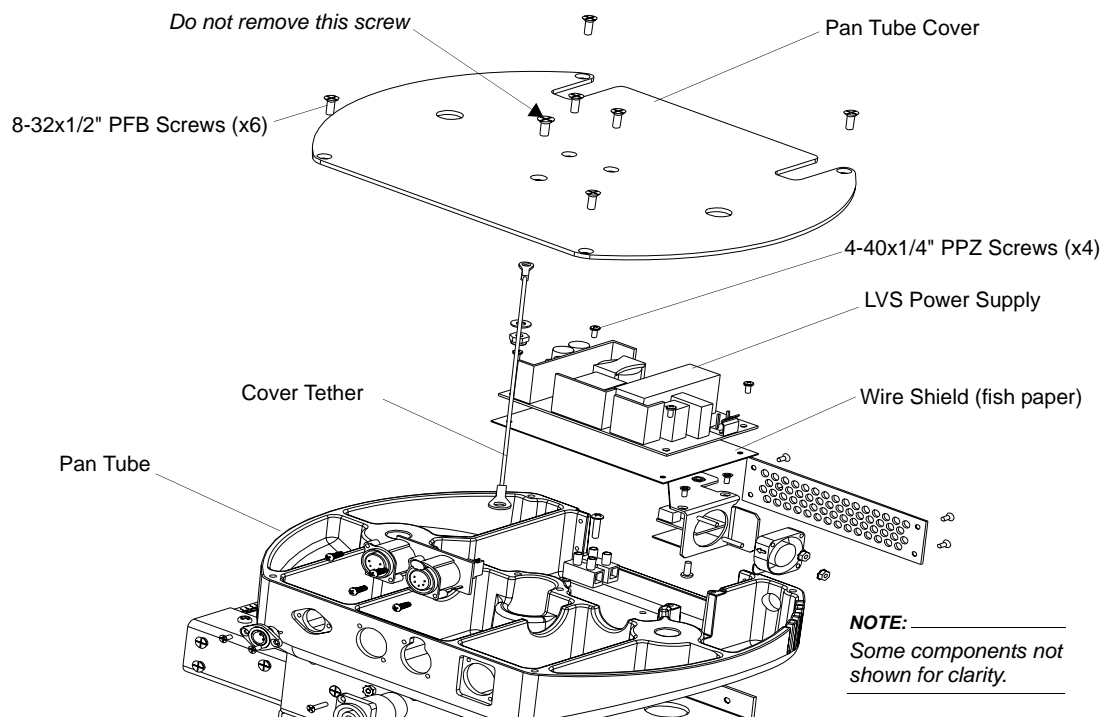
**WARNING:** Remove power from luminaire before performing maintenance.



**WARNING:** With power applied, LIVE AC is present at heatsink. Do not touch when unit is powered.

### To remove and replace LVS:

- Step 1. Remove power from luminaire.
- Step 2. Position light to access top of pan tube assembly.
- Step 3. At pan tube cover, remove six 8-32x1/2" PFB screws.
- Step 4. Remove pan tube cover. (Note, cover tether will still hold cover).



**Figure 27: LVS Replacement (VL500 80V Only)**

- Step 5. Remove LVS Temperature Sensor PCB by following “[Low Voltage Supply \(LVS\) Temperature PCB Replacement \(VL500 80V Only\)](#)” on page 56.
- Step 6. Disconnect the following wiring connections:
  - a. 3-position connector (AC Input)
  - b. 6-position MTA connector (DC Output)
- Step 7. As shown in **Figure 27**, remove four 4-40x1/4" PPZ screws.
- Step 8. Remove LVS. Note fish paper (Wire Shield) under LVS, save and reuse with replacement LVS.
- Step 9. Replace by performing steps 3 through 7 in reverse order.

## Low Voltage Supply (LVS) Temperature PCB Replacement (VL500 80V Only)

### Parts:

24.9685.0740      1 EA      TEMPERATURE BOARD, LVS

### Tools:

- #2 Phillips Screwdriver



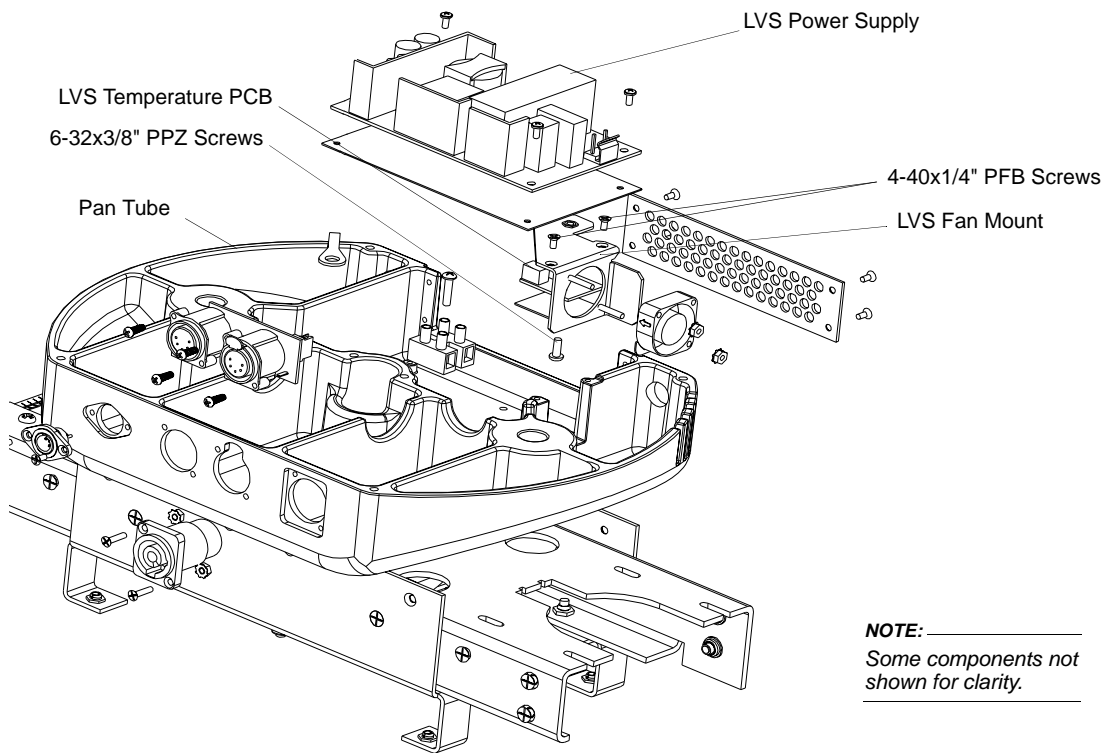
**WARNING:** Remove power from luminaire before performing maintenance.



**WARNING:** With power applied, LIVE AC is present at heatsink. Do not touch when unit is powered.

### To remove and replace LVS temperature PCB:

- Step 1. Remove power from luminaire.
- Step 2. As shown in **Figure 27**, at pan tube cover, remove six 8-32x1/2" PFB screws and remove pan tube cover. (Note, cover tether will still hold cover)
- Step 3. Remove two 4-40 x 1/4" PFB screws and remove LVS fan mount.



**Figure 28: LVS Temperature PCB Replacement (VL500/VL500D/VL500A Only)**

- Step 4. Disconnect the following wiring connections on PCB:
  - a. 2-position connector (LVS Fan)
  - b. 4-position connector (LVS Fan from MCB)
- Step 5. As shown in **Figure 28**, remove one 6-32x3/8" PPZ securing LVS Temperature PCB to LVS fan mount.
- Step 6. Remove LVS Temperature PCB.
- Step 7. Replace by performing steps 2 through 6 in reverse order.

---

## Tilt Motor Assembly Replacement

### Parts:

21.9685.0540      1 EA      ASSY, PAN/TILT MOTOR

### Tools:

- #2 Phillips Screwdriver
- Diagonal Cutters



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**WARNING:** Remove power from luminaire before performing maintenance.

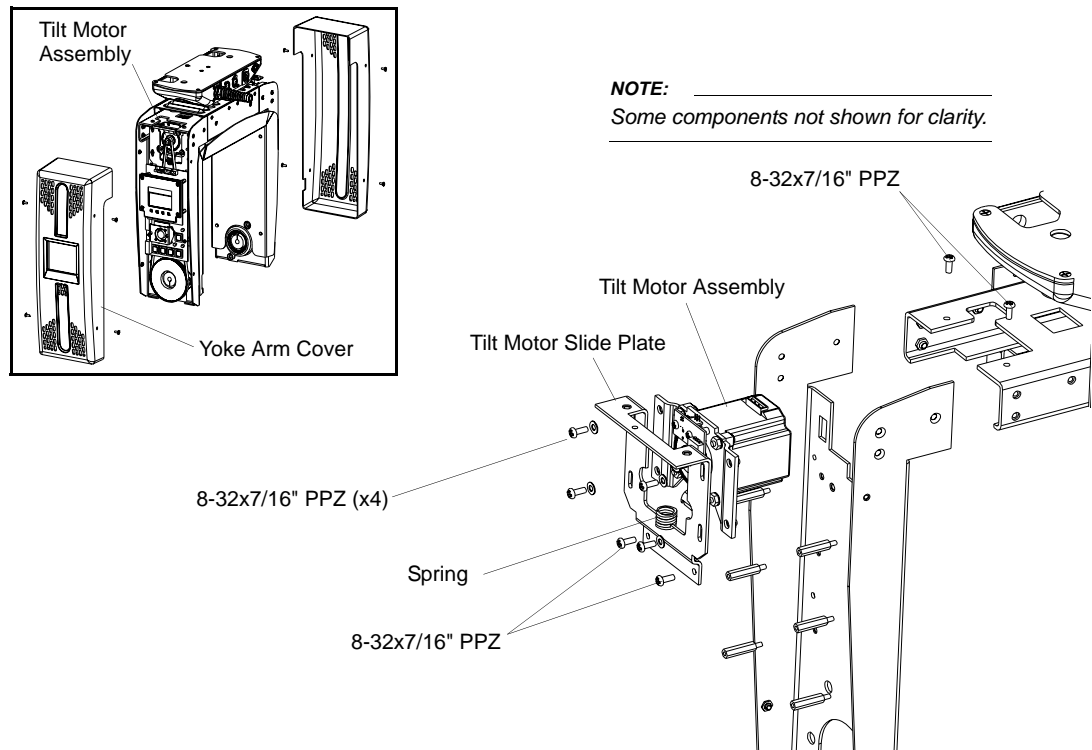
---

### To remove and replace tilt motor assembly:

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. Remove display side yoke cover by removing four 6-32x3/8" LG PTB screws.
- Step 3. Remove Display PCB and Main Control PCB by following procedures [“Display PCB Replacement” on page 49](#) and [“Main Control PCB/Fan Assembly Replacement” on page 50](#).
- Step 4. Remove 4 x 6-32 x 3/8" PFB screws (two each side of yoke) that hold Top Cover Louver Plate and remove plate.
- Step 5. Disconnect wiring from motor and encoder PCB.
- Step 6. Cut wire tie connecting wiring to yoke arm.



Step 7. Loosen (do NOT remove) four 8-32x7/16" PPZ screws that mount Pan/Tilt motor assembly to Tilt Motor Slide Plate.



**Figure 29: Tilt Motor Assembly Replacement**

Step 8. Press motor towards spring to loosen belt tension.

Step 9. Remove belt from both drive pulley and driven pulley.

Step 10. Remove four 8-32x7/16" PPZ screws that mount Tilt Motor Slide Plate to yoke and remove ENTIRE assembly.

Step 11. Remove four 8-32x7/16" PPZ screws that mount Pan/Tilt Motor Assembly to Tilt Motor Slide Plate and remove Pan/Tilt Motor Assembly (be careful of spring).

Step 12. Replace by performing Steps 2 through 10 in reverse order.



**Note:** When tightening four 8-32x7/16" PPZ screws that mount Pan/Tilt Motor Assembly to Tilt Motor Slide Plate, you must tighten in a **CLOCKWISE** pattern starting with screw in lower left-hand side from spring.

## Pan Motor Assembly Replacement

### Parts:

21.9685.0540 1 EA ASSY, PAN/TILT MOTOR

### Tools:

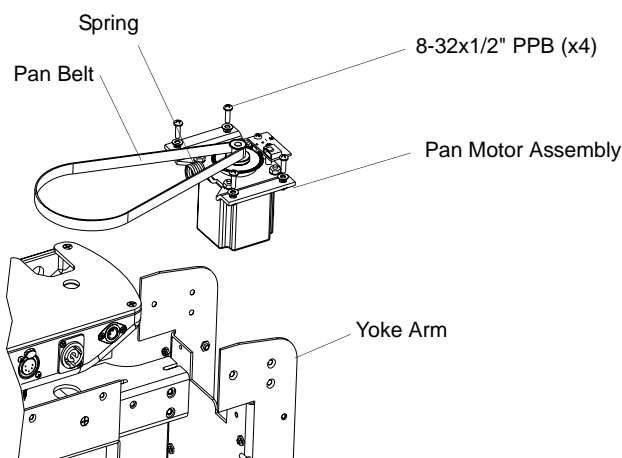
- #2 Phillips Screwdriver



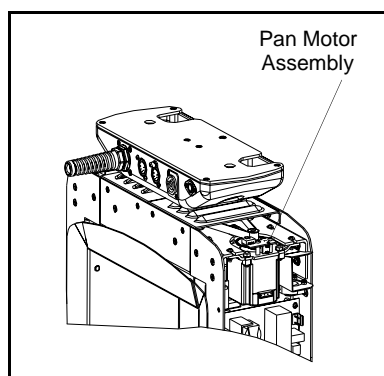
**WARNING:** Remove power from luminaire before performing maintenance.

### To remove and replace pan motor assembly:

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. Remove yoke cover opposite of display by removing four 6-32x3/8" LG PTB screws.
- Step 3. Remove 4 x 6-32 x 3/8" PFB screws (two each side of yoke) that hold Top Cover Louver Plate and remove plate.
- Step 4. Disconnect wiring from motor and encoder PCB.
- Step 5. As shown in **Figure 30**, loosen, but do not remove, four 8-32x1/2" PPB screws.
- Step 6. Press motor towards driven pulley and remove belt from drive pulley.
- Step 7. Remove four 8-32x1/2" PPB screws from Step 5.
- Step 8. Remove Pan/Tilt Motor Assembly.



**NOTE:** Some components not shown for clarity.



**Figure 30: Pan Motor Assembly Replacement**

- Step 9. Replace pan motor assembly by performing Steps 2 through 8 in reverse.



**Note:** When tightening four 8-32x1/2" PPB screws, you must tighten in a **CLOCKWISE** pattern starting with screw in lower left-hand side from spring.

## Pan/Tilt Encoder PCB Replacement

### Parts:

24.9685.7735 1 EA BOARD ASSY, PAN/TILT ENCODER

### Tools:

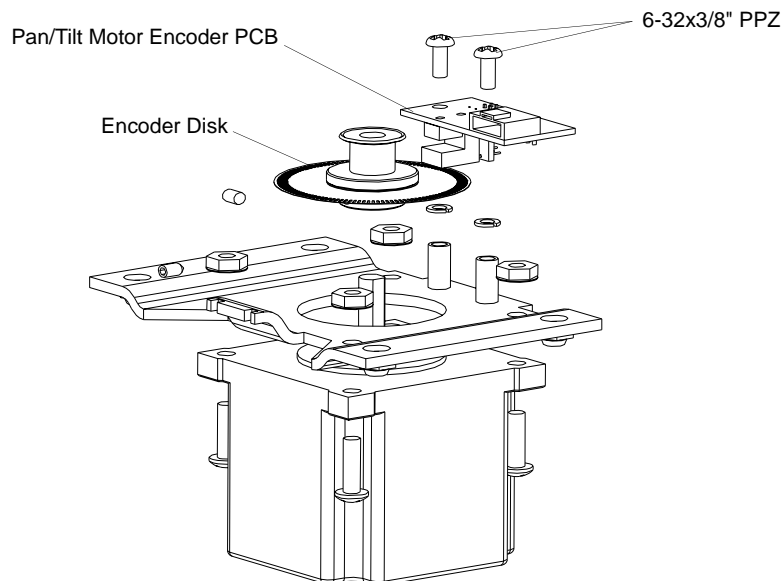
- #2 Phillips Screwdriver



**WARNING:** Remove power from luminaire before performing maintenance.

### To remove and replace pan/tilt encoder PCB:

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. To access pan/tilt encoder PCB:
- For Tilt Motor Encoder PCB removal, remove display side yoke cover by removing four 6-32x3/8" LG PTB screws.
  - For Pan Motor Encoder PCB removal, access pan motor assembly see, "[Pan Motor Assembly Replacement](#)" on page 60.
- Step 3. At encoder PCB, disconnect wiring harness from assembly.
- Step 4. As shown in **Figure 31**, remove two 6-32x3/8" PPZ screws and remove assembly.



**Figure 31: Pan/Tilt Motor Encoder PCB Replacement**

- Step 5. Replace by performing Steps 2 through 4 in reverse order.



**Note:** Ensure that encoder disk passes freely through the optical sensor on PCB.

## Arc Ignitor PCB Replacement (VL500A Only)

### Parts:

24.9685.1000 1 EA IGNITOR, ARC (VL500A ONLY)

### Tools:

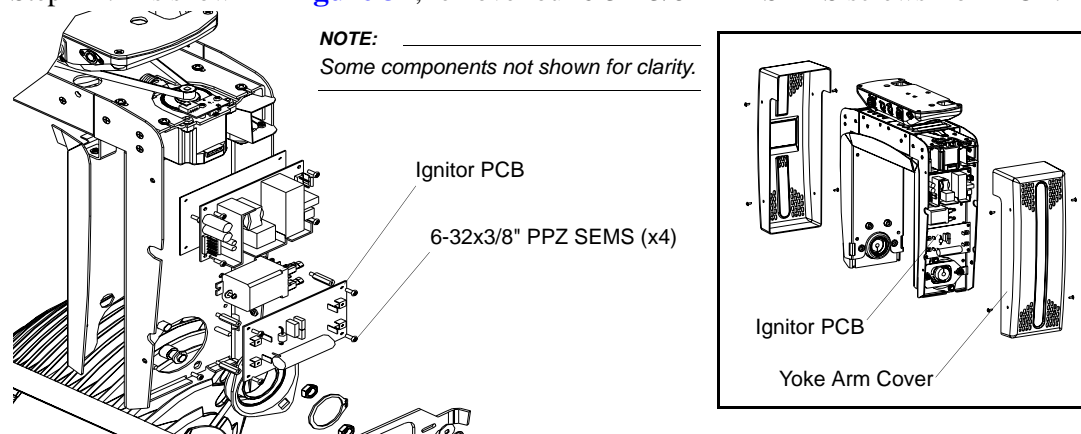
- #2 Phillips Screwdriver



**WARNING:** Remove power from luminaire before performing maintenance.

### To remove and replace ignitor PCB:

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. Remove yoke cover opposite of display by removing four 6-32x3/8" LG PTB screws.
- Step 3. At Ignitor PCB, disconnect Input and Output lamp wires.
- Step 4. As shown in **Figure 32**, remove four 6-32x3/8" PPZ SEMS screws from PCB.



**Figure 32: Ignitor PCB Replacement**

- Step 5. Remove Ignitor PCB.



**Note:** Make sure and install ignitor with proper orientation. Wires from Relay attached to posts labeled "From Relay". Wires going to lamp attach to posts labeled "To Bulb".

- Step 6. Replace Ignitor PCB by performing Steps 2 through 6 in reverse.

---

## IGBT Dimmer Replacement - VL500D Only

### Parts:

69.3173.0115	1 EA	DIMMER, IGBT, 1200W 120V REV PHASE CONT (VL500D 115V MODELS ONLY)
69.3173.0240	1 EA	DIMMER, IGBT, 1200W 240V REV PHASE CONT (VL500D 240V MODELS ONLY)

### Tools:

- #2 Phillips Screwdriver



**WARNING:** Remove power from luminaire before performing maintenance.

---



---

### To remove and replace IGBT dimmer:

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. Remove yoke cover on dimmer side by removing four 6-32x3/8" LG PTB screws.
- Step 3. As shown in **Figure 33**, at dimmer, loosen, but do not remove, four 6-32x3/8" PPZ screws.
- Step 4. Carefully remove IGBT dimmer. Note that there will be wires connected to dimmer on the back side.

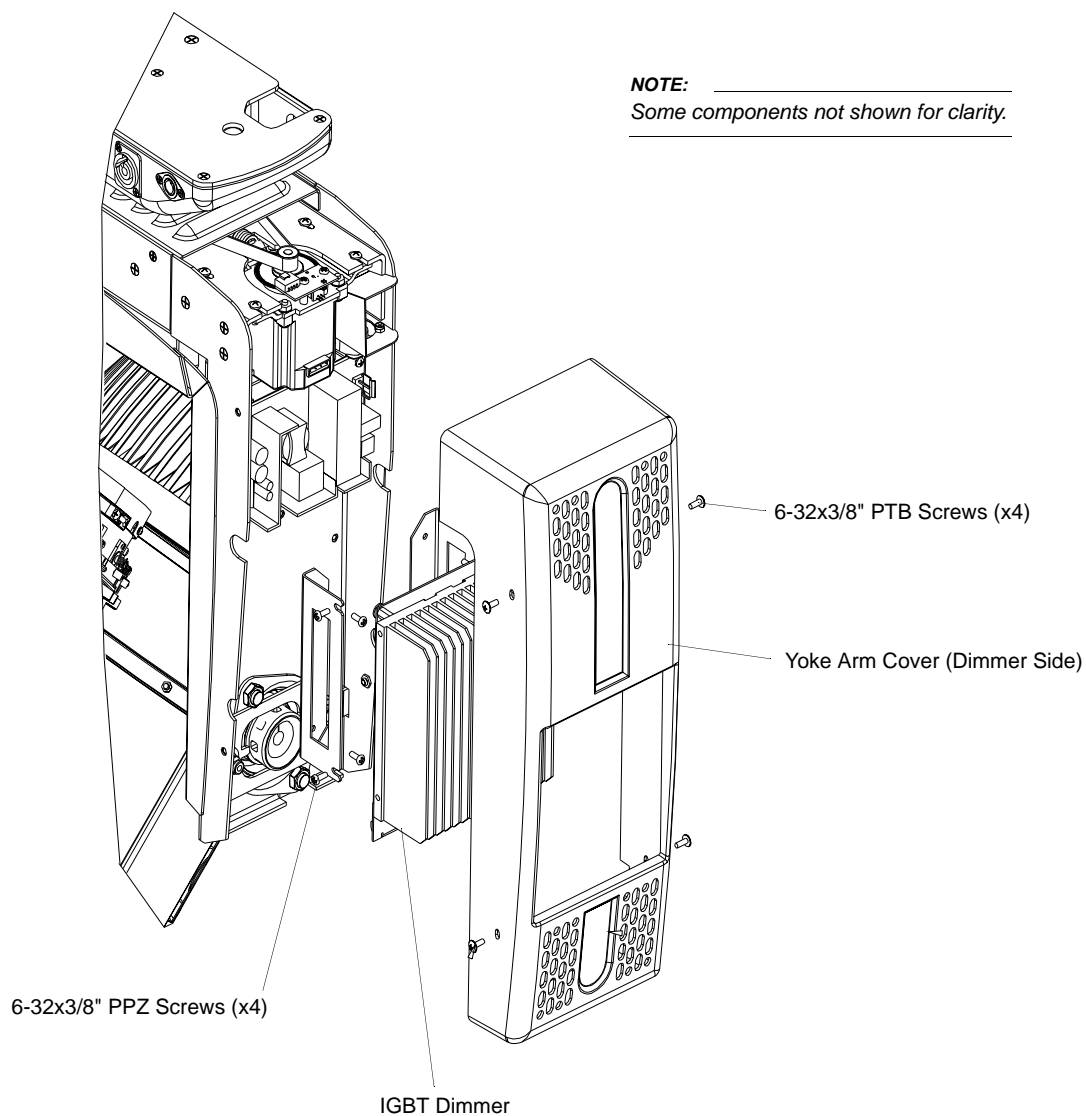


**CAUTION:** All AC wiring is same color. It is a good idea to mark the connector attached to both the AC Line Input and Load (Output) terminals on the IGBT dimmer with a black marker before removing so the phasing can be maintained.

---

- Step 5. At dimmer, carefully note (and label before removing) and disconnect following wiring:
- 3-position (Dimmer Communication from MCB)
  - Four Faston (Quick Connects - AC Input / lamp Power Output)
- Step 6. Remove four 6-32x3/8" PPZ screws from Step 3. Install these screws in replacement IGBT dimmer.

## IGBT Dimmer Replacement - VL500D Only (continued)



**Figure 33: IGBT Dimmer Replacement (VL500D Only)**

Step 7. Replace IGBT Dimmer by performing Steps 2 through 6 in reverse.

---

## 80V Dimmer Replacement - VL500 80V Only

### Parts:

21.9685.2750      1 EA      ASSY, 80V DIMMER

### Tools:

- #2 Phillips Screwdriver



**WARNING:** Remove power from luminaire before performing maintenance.

---



---

### To remove and replace 80V dimmer:

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. Remove yoke cover on dimmer side by removing four 6-32x3/8" LG PTB screws.
- Step 3. As shown in **Figure 34**, at dimmer, loosen, but do not remove, four 6-32x3/8" PPZ screws.
- Step 4. Carefully remove 80V dimmer. Note that there will be wires connected to dimmer on the back side.



**CAUTION:** All AC wiring is same color. It is a good idea to mark the connector attached to both the AC Line Input and Load (Output) terminals on the IGBT dimmer with a black marker before removing so the phasing can be maintained.

---

- Step 5. At dimmer, carefully note (and label before removing) and disconnect following wiring:
- 4-position (Dimmer Communication from MCB)
  - Four Faston (Quick Connects - AC Input / lamp Power Output)
  - Ground Wires
- Step 6. Remove four 6-32x3/8" PPZ screws from Step 3. Install these screws in replacement 80V dimmer.

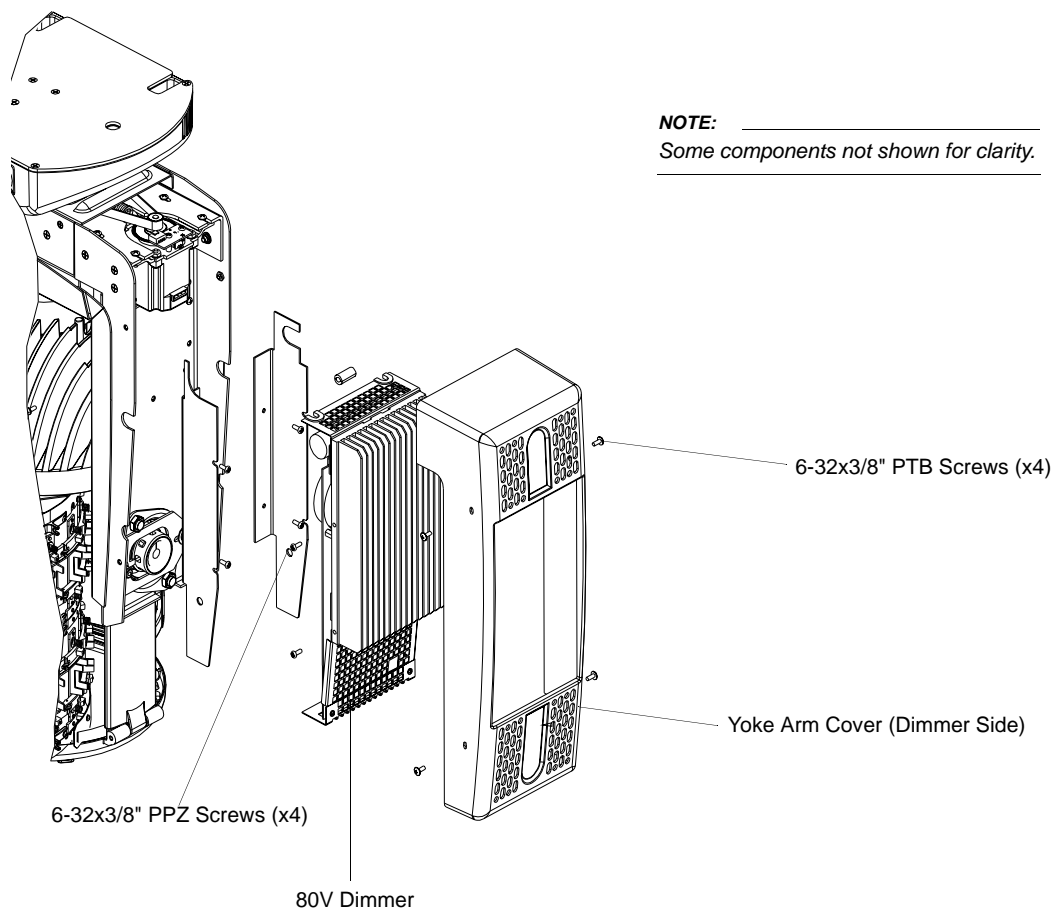


**WARNING:** Be careful with ferrite cores on lamp wires. Make sure they do not come in contact with dimmer; they may damage components on dimmer.

---



---



**Figure 34: 80V Dimmer Replacement (VL500 80V only)**

Step 7. Replace 80V Dimmer by performing Steps 2 through 6 in reverse.



## Arc Ballast Replacement (VL500A Only)

### Parts:

21.9685.0802      1 EA      ASSY, BALLAST, 700W

### Tools:

- None



**WARNING:** Remove power from luminaire before performing maintenance.

### To remove and replace arc ballast dimmer:

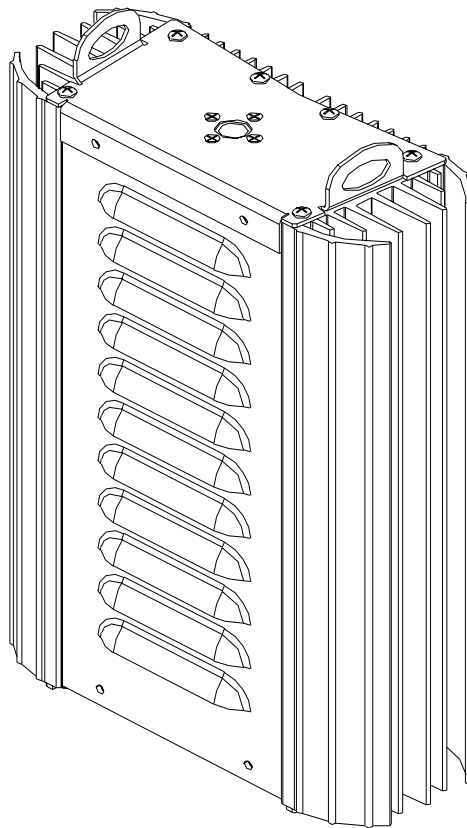
Step 1. Disconnect luminaire AC input cable from power source.



**Note:** The Arc Ballast Unit is separate from the luminaire.

Step 2. Disconnect Ballast Interconnect Cable Assembly from ballast and luminaire.

Step 3. Connect Ballast Interconnect Cable Assembly to replacement ballast and luminaire.



**Figure 35: Arc Ballast Assembly**

## Safety Relay Replacement (VL500A Only)

### Parts:

23.9650.3327 1 EA RELAY, ELECTRICAL ASSY (VL500A ONLY)

### Tools:

- #2 Phillips Screwdriver

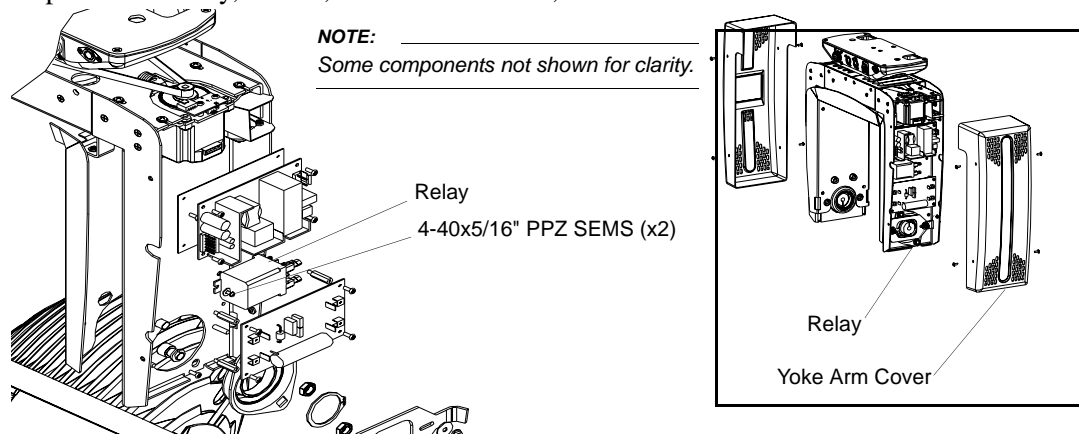


**WARNING:** Remove power from luminaire before performing maintenance.

### To remove and replace safety relay assembly:

- Step 1. Disconnect luminaire AC input cable from power source.
- Step 2. Remove yoke cover opposite of display by removing four 6-32x3/8" LG PTB screws.
- Step 3. At Relay, disconnect following wiring:
- Bundled AC from Ballast
  - White AC to Ignitor
  - Red +24V DC from MCB
  - Green -24V DC from Backcap Interlock (Kill) Switch
- Step 4. At Relay, loosen, but do not remove, two 4-40x5/16" PPZ SEMS screws.

**NOTE:** \_\_\_\_\_  
Some components not shown for clarity.



- Step 5. Carefully slide Relay out of yoke arm.



**Note:** When replacing Relay, do not overtighten screws securing Relay (as described in Step 4). Doing so may crack plastic tabs on Relay.

- Step 6. Replace Relay by performing Steps 2 through 5 in reverse.

## AC Input (PowerCon) Connector Replacement

### Parts:

25.9685.0756 1 EA CONNECTOR, AC INPUT (POWERCON)

### Tools:

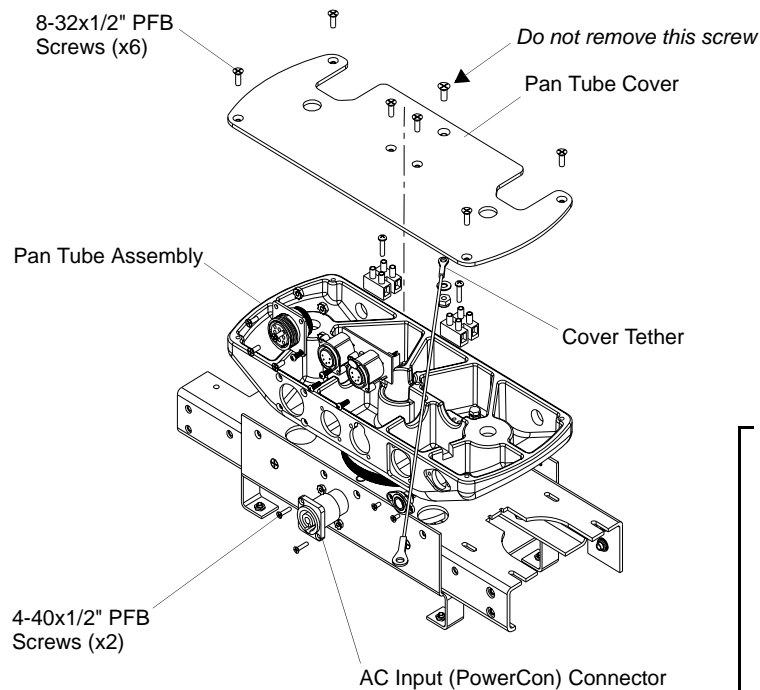
- #2 Phillips Screwdriver



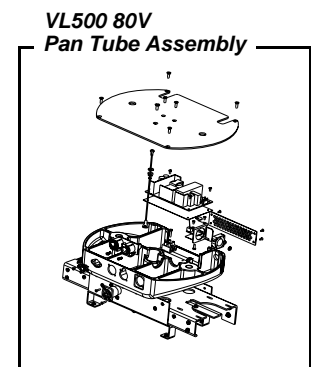
**WARNING:** Remove power from luminaire before performing maintenance.

### To remove and replace AC input (PowerCon) connector:

- Step 1. Remove power from luminaire.
- Step 2. Position light to access top of pan tube assembly.
- Step 3. As shown in **Figure 36**, at pan tube cover, remove six 8-32x1/2" PFB screws.
- Step 4. Remove pan tube cover. (Note, tether will still hold cover).



**NOTE:** Some components not shown for clarity. This procedure is applicable for all models.



**Figure 36: AC Input (PowerCon) Connector Replacement**

- Step 5. Remove two 4-40x1/2" PFB screws at front of PowerCon.
- Step 6. Disconnect wiring from PowerCon.
- Step 7. Replace PowerCon by performing Steps 3 through 6 in reverse.

## Mini-XLR (Display/Remote Programming) Connector Replacement

### Parts:

25.9685.0770 1 EA CONNECTOR, MINI-XLR (DISPLAY / REMOTE PROGRAMMING)

### Tools:

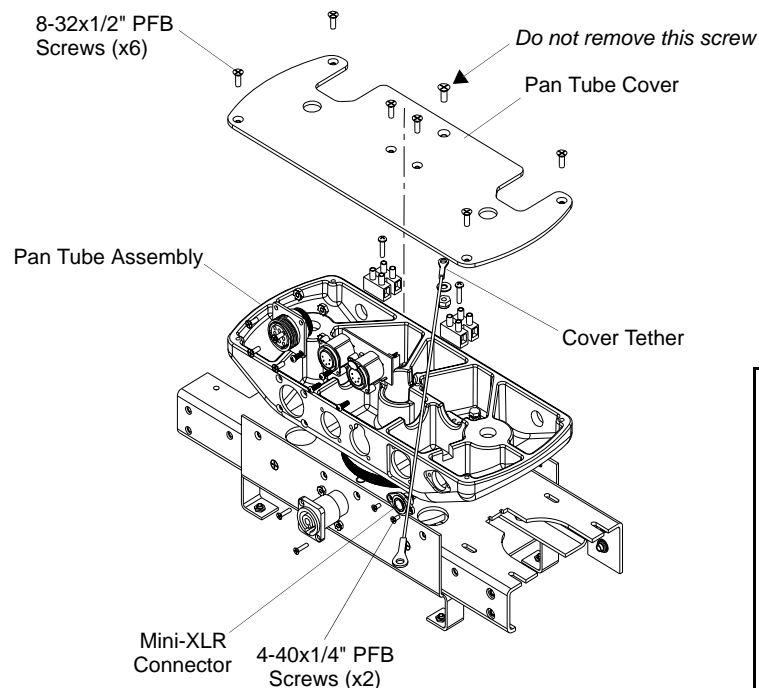
- #2 Phillips Screwdriver



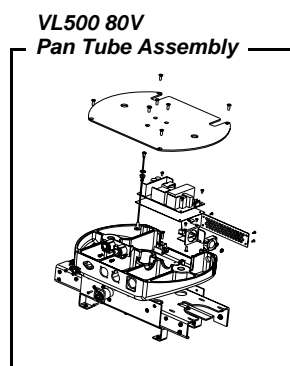
**WARNING:** Remove power from luminaire before performing maintenance.

### To remove and replace Mini-XLR connector:

- Step 1. Remove power from luminaire.
- Step 2. Position light to access top of pan tube assembly.
- Step 3. As shown in **Figure 37**, at pan tube cover, remove six 8-32x1/2" PFB screws.
- Step 4. Remove pan tube cover. (Note, tether will still hold cover).



**NOTE:** \_\_\_\_\_  
Some components not shown for clarity. This procedure is applicable for all models.



**Figure 37: Mini-XLR (Display/Remote Programming) Connector Replacement**

- Step 5. Disconnect wiring from Mini-XLR.
- Step 6. Remove two 4-40x1/4" PFB screws at front of Mini-XLR connector.
- Step 7. Replace Mini-XLR by performing Steps 3 through 6 in reverse.

## DMX PCB Assembly Replacement

### Parts:

24.9663.3895 1 EA ASSY, DMX INPUT PCB

### Tools:

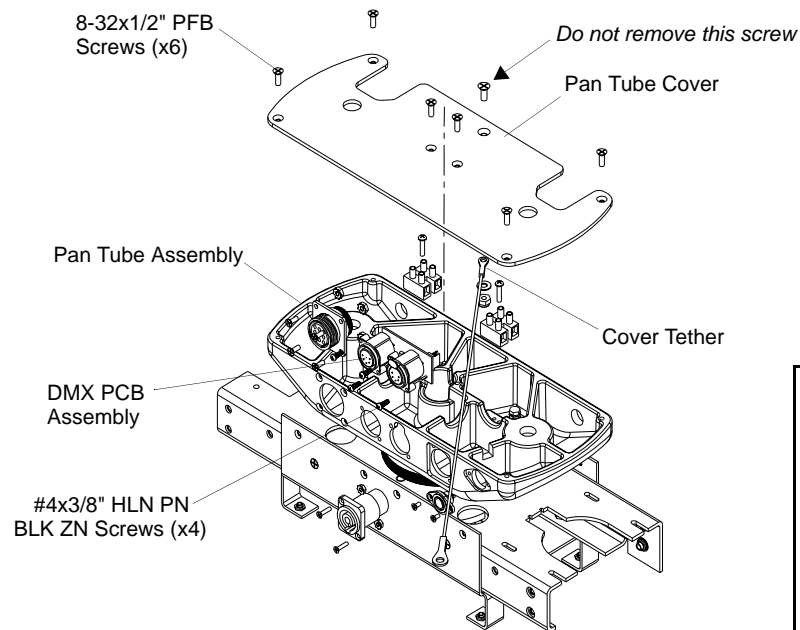
- #2 Phillips Screwdriver



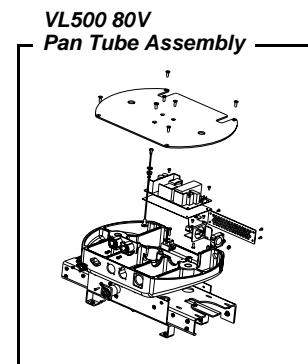
**WARNING:** Remove power from luminaire before performing maintenance.

### To remove and replace DMX PCB assembly:

- Step 1. Remove power from luminaire.
- Step 2. Position light to access top of pan tube assembly.
- Step 3. As shown in **Figure 38**, at pan tube cover, remove six 8-32x1/2" PFB screws.
- Step 4. Remove pan tube cover. (Note, tether will still hold cover).



**NOTE:**  
Some components not shown for clarity. This procedure is applicable for all models.



**Figure 38: DMX PCB Assembly Replacement**

- Step 5. Disconnect wiring from DMX PCB Assembly.
- Step 6. Remove four #4x3/8" H/L PN BLK ZN screws at front of DMX PCB Assembly.
- Step 7. Replace DMX PCB Assembly by performing Steps 3 through 6 in reverse.

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## Cleaning Optical Lenses and Filters

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**WARNING:** Remove power from luminaire before performing maintenance.

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**WARNING:** Acetone is a harsh cleaning agent and solvent. Acetone is very flammable. Please handle acetone according to manufacturer's safety instructions and precautions.

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The front lens, optics/color filters, and reflector may require cleaning after extended use.

- **FRONT LENS:** Use Isopropyl Alcohol along with a soft, lint-free cloth to clean the front lens.
- **OPTICS/COLOR FILTERS:** Use Acetone or Isopropyl Alcohol along with a soft, lint-free cloth to clean the optics/color filters.
- **REFLECTOR:** Use Acetone or Isopropyl Alcohol along with a soft, lint-free cloth to clean the reflector.



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**CAUTION:** Do not continuously rub color filters or reflector - it may damage or remove the optical coating. Never use ammonia-based cleaners at anytime.

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## CHAPTER 3.

# Illustrated Parts Breakdown

This chapter contains illustrated parts breakdowns for all VL500™ wash luminaire assemblies including the arc ballast unit.

- **Drawing Trees**
- **Top Assembly**
- **Head Assembly**
- **Yoke Assembly**
- **Cables**
- **Arc Ballast Assembly**

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**Note:** The following abbreviations are used to identify parts specific to certain models.

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### VL500 Model Parts Identifiers

ABBREVIATION	MODEL (INCLUDES STANDARD AND PASTEL COLOR SYSTEMS)
VL500	VL500™ Incandescent Luminaire (120V or 240V)
VL500D	VL500™D Incandescent Luminaire with IGBT On-Board Dimmer (120V or 240V)
VL500 80V	VL500™ 80V Incandescent Luminaire with 80V On-Board Dimmer
VL500A	VL500™A Arc Luminaire with External Ballast



## Drawing Trees

### VL500 and VL500D Incandescent Luminaires

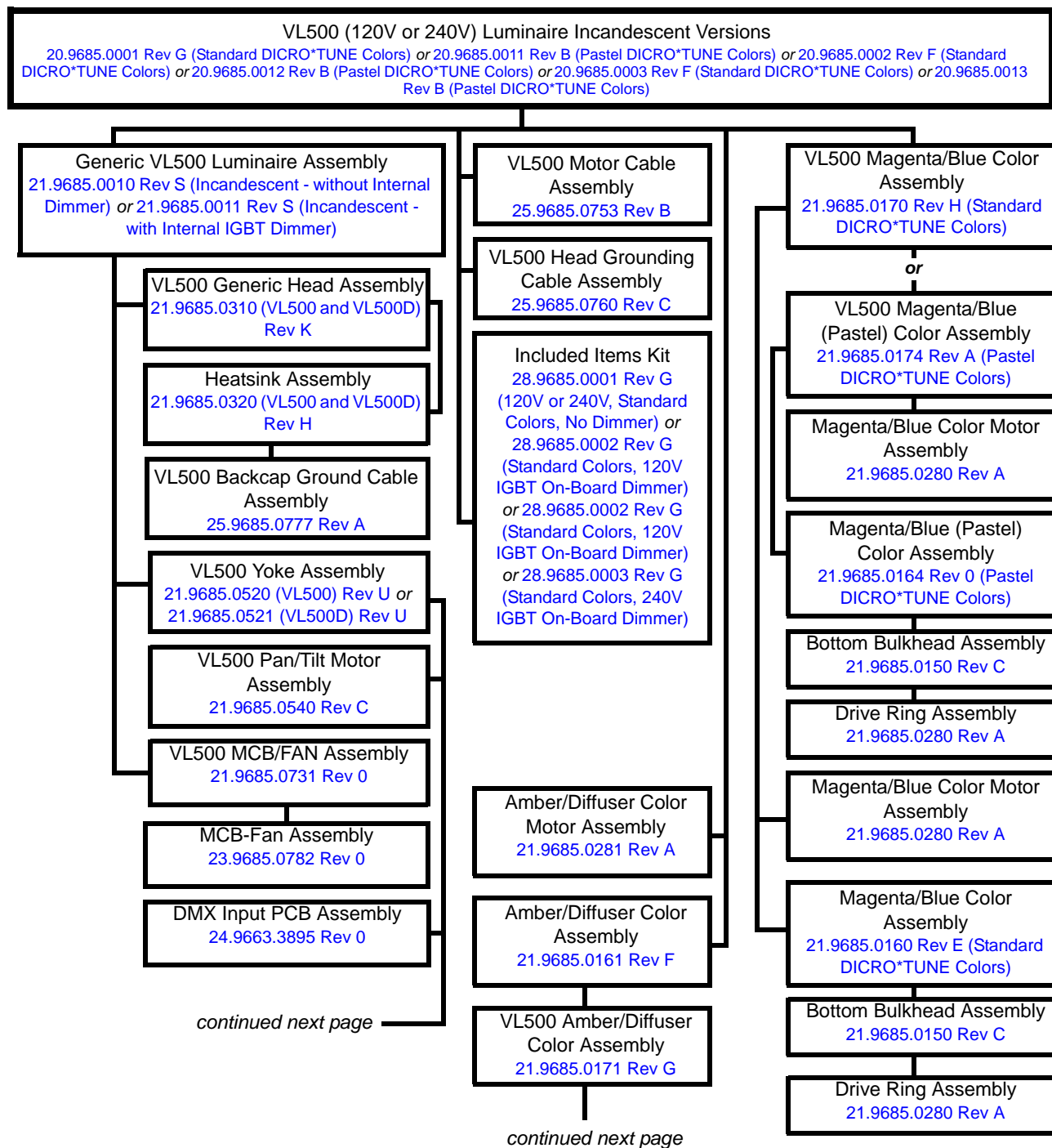
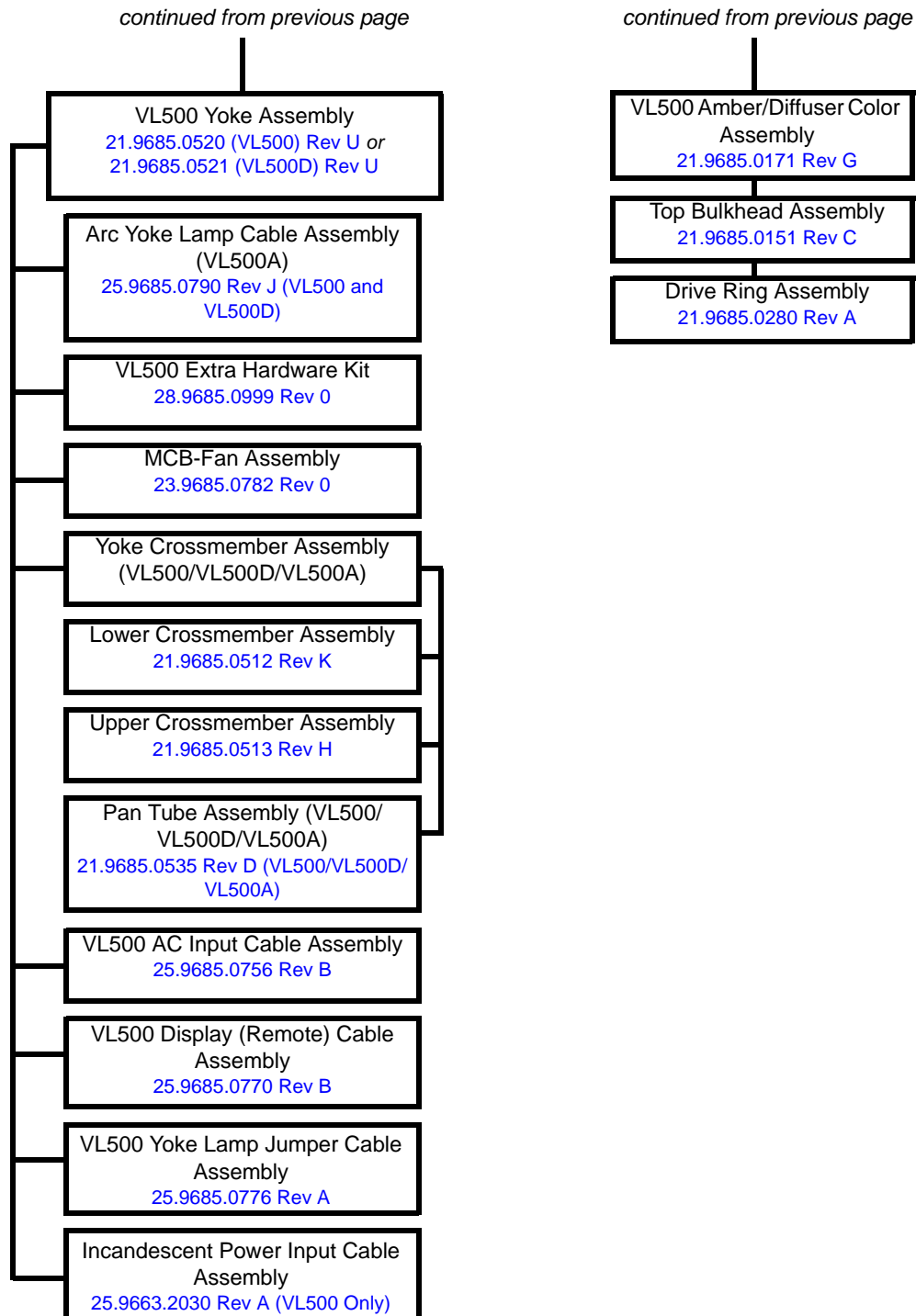


Figure 3-1: VL500 and VL500D Incandescent Luminaires Drawing Tree (Part 1)



## VL500 and VL500D Incandescent Luminaires (continued)



**Figure 3-2: VL500 and VL500D Incandescent Luminaires Drawing Tree (Part 2)**

## VL500 80V Incandescent Luminaires

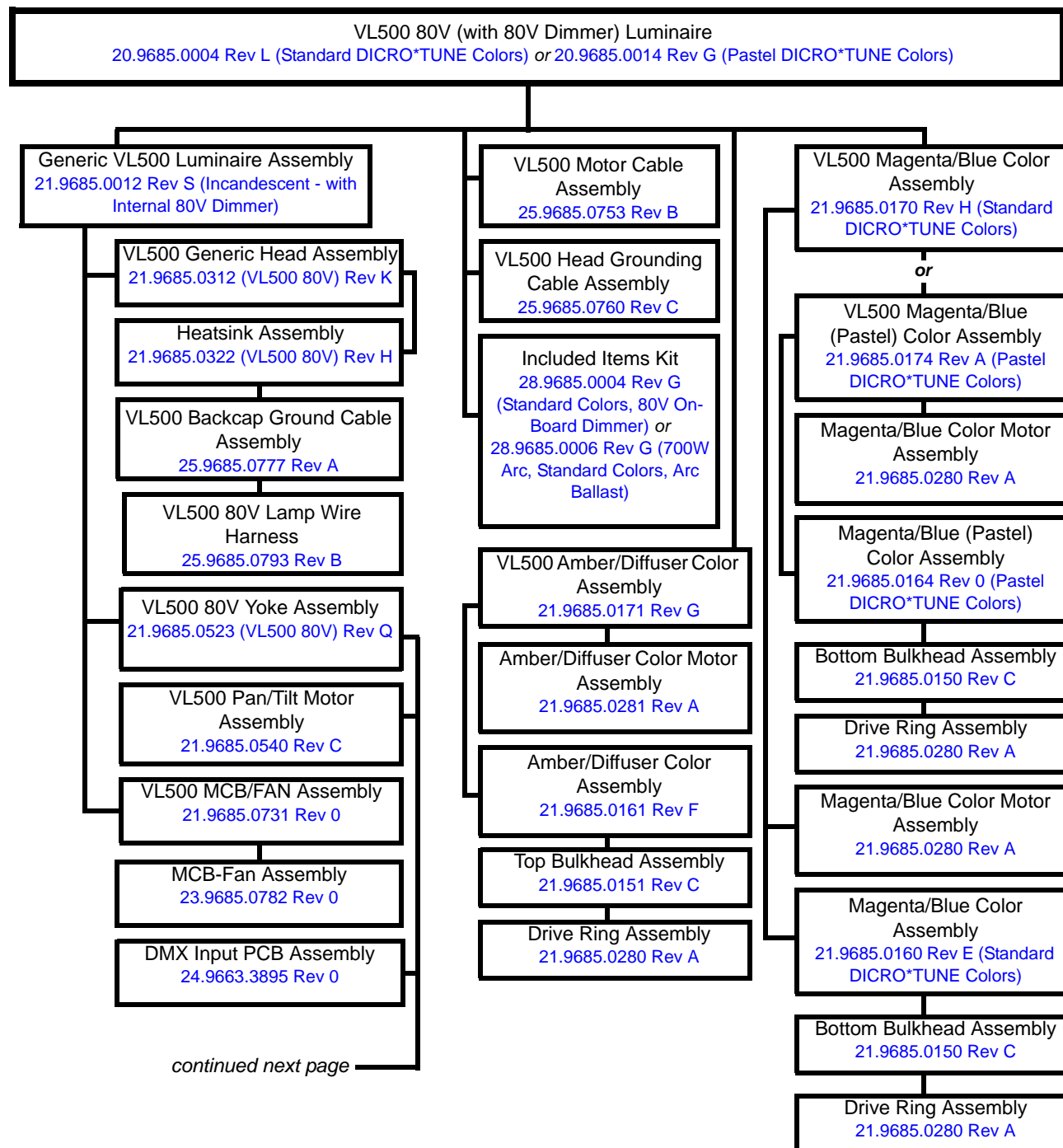
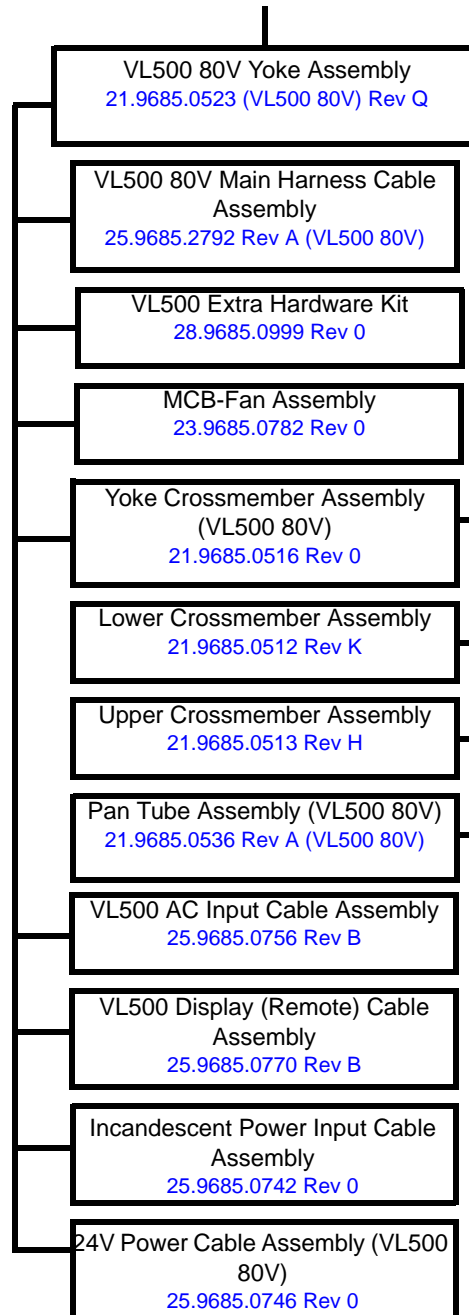


Figure 3-3: VL500 80V Incandescent Luminaires Drawing Tree (Part 1)

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VL500 80V Incandescent Luminaires (continued)*continued from previous page***Figure 3-4: VL500 80V Incandescent Luminaires Drawing Tree (Part 2)**

## VL500A Arc Luminaires

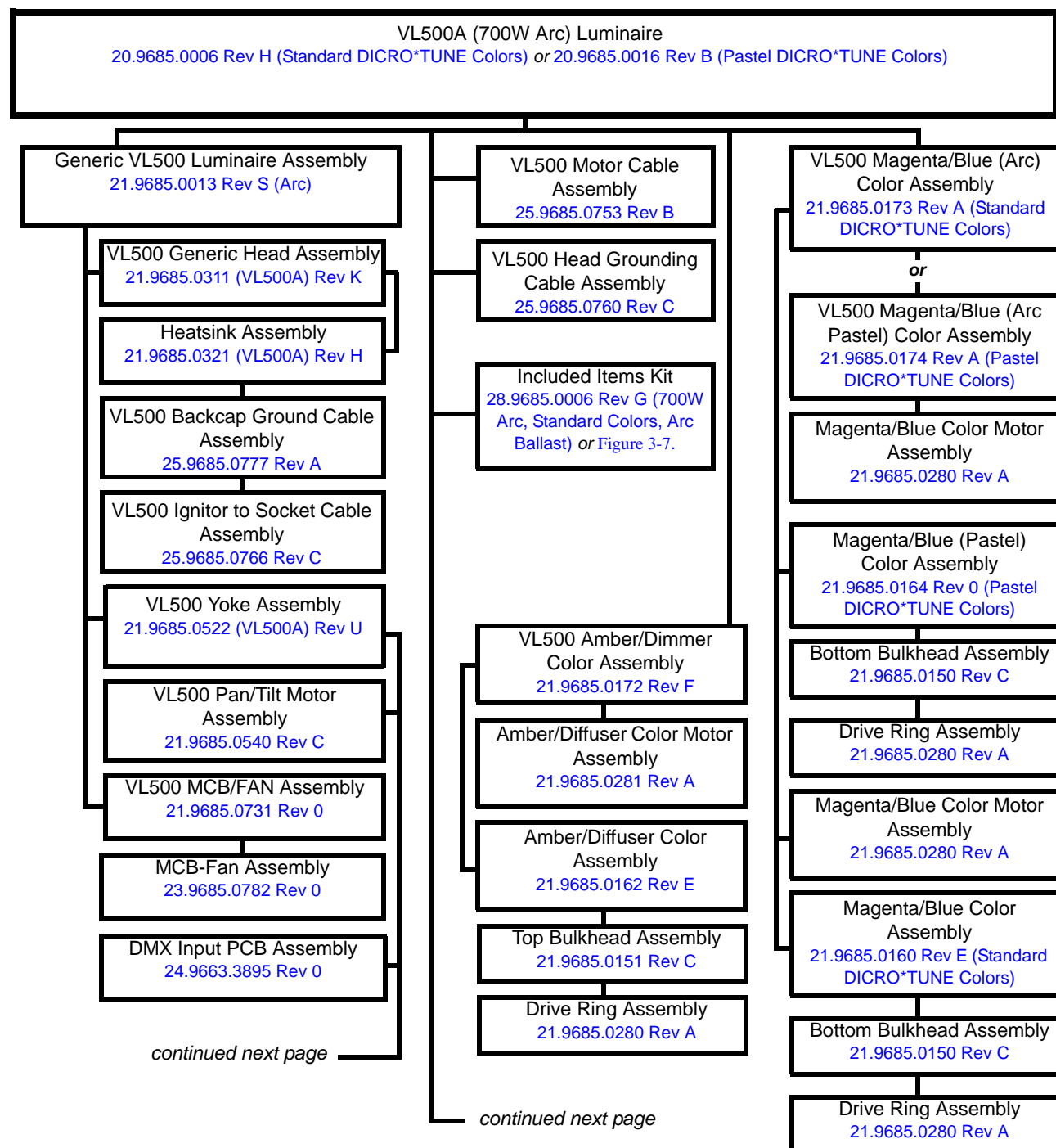


Figure 3-5: VL500A Arc Luminaires Drawing Tree (Part 1)



## Top Assembly

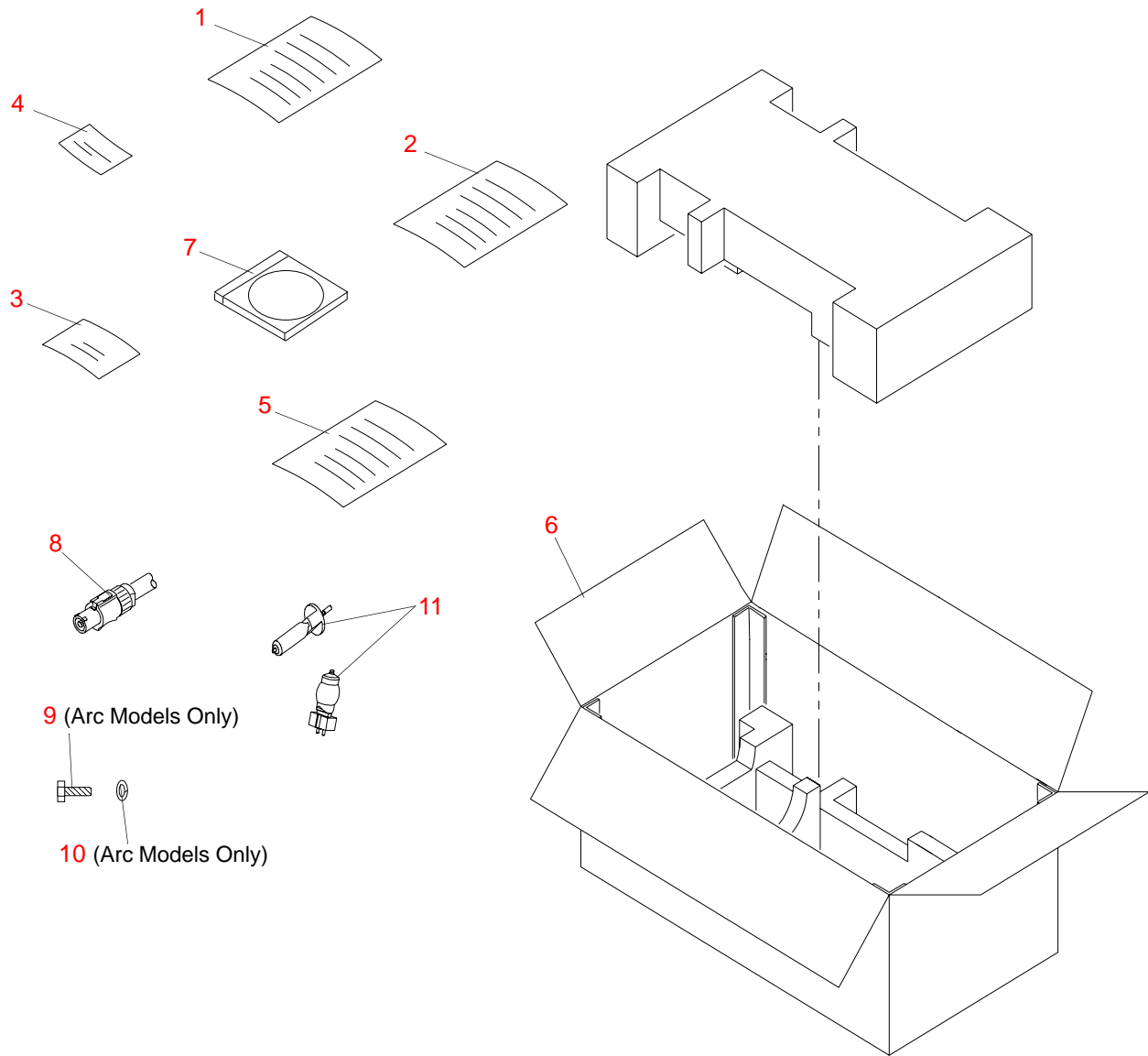
### Included Items Kit

28.9685.0001 Rev G (120V or 240V, Standard Colors, No Dimmer)  
 28.9685.0002 Rev G (Standard Colors, 120V IGBT On-Board Dimmer)  
 28.9685.0003 Rev G (Standard Colors, 240V IGBT On-Board Dimmer)  
 28.9685.0004 Rev G (Standard Colors, 80V On-Board Dimmer)  
 28.9685.0006 Rev G (700W Arc, Standard Colors, Arc Ballast)

Refer to [Figure 3-7](#).

No.	Item	Qty.	UM.	Description
1	02.8001.0001	1	EA	PRODUCT SUPPORT SHEET, VARI-LITE CUSTOMER SERVICE
2	02.8001.0002	1	EA	QA CERTIFICATE, VARI-LITE
3	02.8052.0001	1	EA	CARD, LIMITED WARRANTY
4	02.8700.0001	1	EA	CARD, PRODUCT REGISTRATION - VL500
5	02.9685.0002	1	EA	UNPACK/QUICK START SHEET, VL500
6	07.9685.1005	1	EA	SHIPPING BOX, CARDBOARD - VL500
7	08.0500.0001	1	EA	CD ROM, VL500 PRODUCT, DOCUMENTATION
8	52.6541.0001	1	EA	CONN, BLUE CABLE PWR INLET 3-POLE LOCKING - POWERCON
9	53.6505.0027	1	EA	BOLT, 1/2" X 13 X 1" LG HX HD ZINC ( <b>VL500A MODELS ONLY</b> )
10	55.6539.0001	1	EA	WASHER, 1/2" SPLIT LOCK ( <b>VL500A MODELS ONLY</b> )
11	71.2526.0230	1	EA	230V/1000W TUNGSTEN HALOGEN LAMP, ( <b>VL500D, 240V ONLY</b> )
	71.2529.0120	1	EA	120V/1200W TUNGSTEN HALOGEN LAMP, ( <b>VL500D, 120V ONLY</b> )
	71.9685.0082	1	EA	80V/1200W TUNGSTEN HALOGEN LAMP, ( <b>VL500 80V ONLY</b> )
	71.9685.0702	1	EA	700W MSR ARC LAMP, ( <b>VL500A ONLY</b> )

## Included Items Kit (continued)



**Figure 3-7: Included Items Kit**

## Label Locations

16.9685.00YY Rev D

Refer to [Figure 3-8](#).

Note: (CLR) = Clear labels - for use with non-black fixtures.

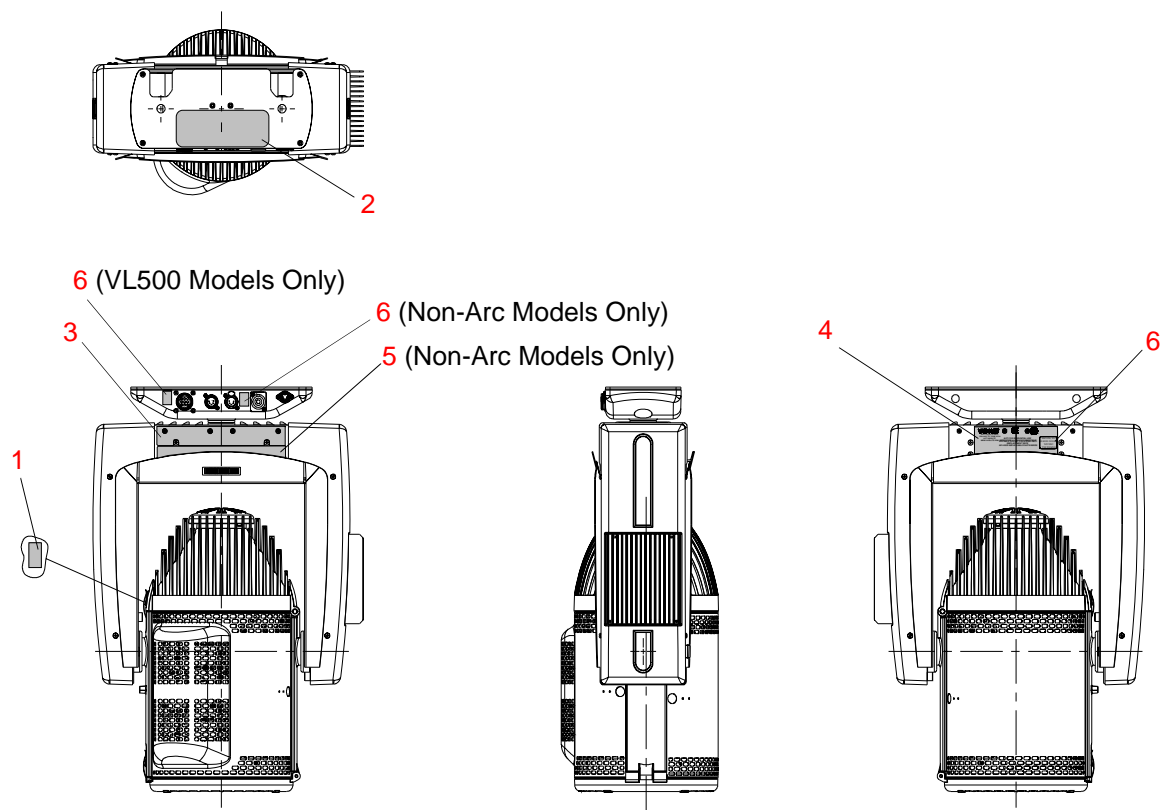
No.	Item	Qty.	UM.	Description
1	04.9661.0034	1	EA	LABEL, RELAMPING - 2000 SERIES
2	04.9663.1837	1	EA	LABEL, PATENT
3	04.9685.0911	1	EA	LABEL, WARNING VL500
	04.9685.0911.00	1	EA	LABEL, WARNING VL500 (CLR)
4	04.9685.0912	1	EA	LABEL, COMPLIANCE VL500
	04.9685.0912.00	1	EA	LABEL, COMPLIANCE VL500 (CLR)
5	04.9685.0913	1	EA	LABEL, LAMP TYPE 120V OR 240V INCANDESCENT ( <b>VL500 MODELS ONLY</b> )
	04.9685.0913.00	1	EA	LABEL, LAMP TYPE 120V OR 240V INCANDESCENT (CLR) ( <b>VL500 MODELS ONLY</b> )
	04.9685.0914	1	EA	LABEL, LAMP TYPE 120V INCANDESCENT ( <b>VL500D 120V MODELS ONLY</b> )
	04.9685.0914.00	1	EA	LABEL, LAMP TYPE 120V INCANDESCENT (CLR) ( <b>VL500D 120V MODELS ONLY</b> )
	04.9685.0915	1	EA	LABEL, LAMP TYPE 240V INCANDESCENT ( <b>VL500D 240V MODELS ONLY</b> )
	04.9685.0915.00	1	EA	LABEL, LAMP TYPE 240V INCANDESCENT (CLR) ( <b>VL500D 240V MODELS ONLY</b> )
	04.9685.0917	1	EA	LABEL, LAMP TYPE 700W ARC ( <b>VL500A MODELS ONLY</b> )
	04.9685.0917.00	1	EA	LABEL, LAMP TYPE 700W ARC (CLR) ( <b>VL500A MODELS ONLY</b> )
	04.9685.0918	1	EA	LABEL, LAMP TYPE 80V INCANDESCENT ( <b>VL500 80V MODELS ONLY</b> )
	04.9685.0918.00	1	EA	LABEL, LAMP TYPE 80V INCANDESCENT (CLR) ( <b>VL500 80V MODELS ONLY</b> )



No.	Item	Qty.	UM.	Description
6	04.9685.0920	2	EA	LABEL, AC INPUT RATING (VL500 MODELS ONLY)
	04.9685.0920.00	2	EA	LABEL, AC INPUT RATING (CLR) (VL500 MODELS ONLY)
	04.9685.0921	2	EA	LABEL, AC INPUT RATING (VL500 PASTEL MODELS ONLY)
	04.9685.0921.00	2	EA	LABEL, AC INPUT RATING (CLR) (VL500 PASTEL MODELS ONLY)
	04.9685.0922	2	EA	LABEL, AC INPUT RATING (VL500D 120V MODELS ONLY)
	04.9685.0922.00	2	EA	LABEL, AC INPUT RATING (CLR) (VL500D 120V MODELS ONLY)
	04.9685.0923	2	EA	LABEL, AC INPUT RATING (VL500D 120V PASTEL MODELS ONLY)
	04.9685.0923.00	2	EA	LABEL, AC INPUT RATING (CLR) (VL500D 120V PASTEL MODELS ONLY)
	04.9685.0924	2	EA	LABEL, AC INPUT RATING (VL500D 240V MODELS ONLY)
	04.9685.0924.00	2	EA	LABEL, AC INPUT RATING (CLR) (VL500D 240V MODELS ONLY)
	04.9685.0925	2	EA	LABEL, AC INPUT RATING (VL500D 240V PASTEL MODELS ONLY)
	04.9685.0925.00	2	EA	LABEL, AC INPUT RATING (CLR) (VL500D 240V PASTEL MODELS ONLY)
	04.9685.0926	2	EA	LABEL, AC INPUT RATING (VL500 80V MODELS ONLY)
	04.9685.0926.00	2	EA	LABEL, AC INPUT RATING (CLR) (VL500 80V MODELS ONLY)
	04.9685.0927	2	EA	LABEL, AC INPUT RATING (VL500 80V PASTEL MODELS ONLY)
	04.9685.0927.00	2	EA	LABEL, AC INPUT RATING (CLR) (VL500 80V PASTEL MODELS ONLY)
	04.9685.0930	1	EA	LABEL, AC INPUT RATING (VL500 700W MODELS ONLY)
	04.9685.0930.00	1	EA	LABEL, AC INPUT RATING (CLR) (VL500 700W MODELS ONLY)
	04.9685.0931	1	EA	LABEL, AC INPUT RATING (VL500 700W PASTEL MODELS ONLY)
	04.9685.0931.00	1	EA	LABEL, AC INPUT RATING (CLR) (VL500 700W PASTEL MODELS ONLY)
-	04.9685.0941	1	EA	LABEL, PRODUCT, 700W ARC BALLAST (NOT SHOWN)
-	04.9685.0941.00	1	EA	LABEL, PRODUCT, 700W ARC BALLAST (CLR) (NOT SHOWN)
-	04.9685.0942	1	EA	LABEL, COMPLIANCE, ARC BALLAST (NOT SHOWN)
-	04.9685.0942.00	1	EA	LABEL, COMPLIANCE, ARC BALLAST (CLR) (NOT SHOWN)

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## Label Locations (continued)



**Figure 3-8: Label Locations**

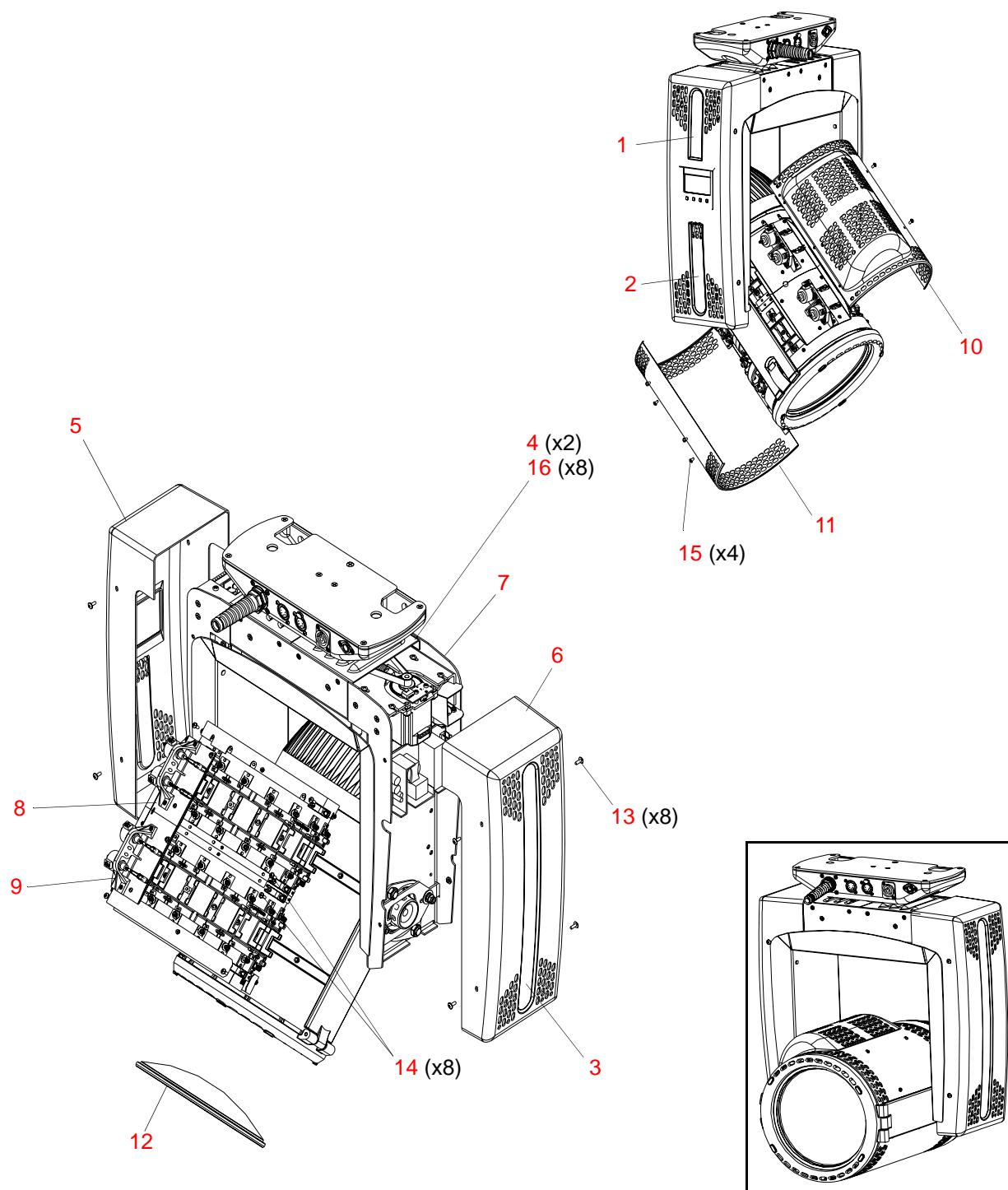
## VL500 (120V or 240V) Luminaire

20.9685.0001 Rev G (Standard DICRO\*TUNE Colors)  
20.9685.0011 Rev B (Pastel DICRO\*TUNE Colors)

Refer to [Figure 3-9](#)

No.	Item	Qty.	UM.	Description
1	04.9685.0573	1	EA	LABEL, MCB YOKE COVER
2	04.9685.0574	1	EA	LABEL, MCB YOKE COVER
3	04.9685.0588	1	EA	LABEL, YOKE COVER, PLAIN, VL500
4	10.9685.0525	2	EA	LOUVER PLATE, TOP COVER
5	10.9685.0580	1	EA	YOKE ARM COVER, DISPLAY SIDE
6	10.9685.0584	1	EA	YOKE ARM COVER, POWER SUPPLY SIDE
7	<a href="#">21.9685.0010</a>	1	EA	ASSY, GENERIC VL500, INCANDESCENT
8	<a href="#">21.9685.0170</a>	1	EA	ASSY, COLOR, MAGENTA / BLUE, STANDARD ( <b>20.9685.0001 ONLY</b> )
	<a href="#">21.9685.0174</a>	1	EA	ASSY, COLOR, MAGENTA / BLUE, PASTEL ( <b>20.9685.0011 ONLY</b> )
9	<a href="#">21.9685.0171</a>	1	EA	ASSY, COLOR, AMBER / DIFFUSION
10	22.9685.0086	1	EA	HEAD COVER, TOP
11	22.9685.0087	1	EA	HEAD COVER, BOTTOM
-	<a href="#">25.9685.0753</a>	1	EA	CABLE ASSY, VL500 MOTOR ( <b>NOT SHOWN</b> )
-	<a href="#">25.9685.0760</a>	1	EA	CABLE ASSY, HEAD GROUNDING ( <b>NOT SHOWN</b> )
-	<a href="#">28.9685.0001</a>	1	EA	INCLUDED ITEMS KIT, VL500 INCANDESCENT ( <b>NOT SHOWN</b> )
12	42.9685.0207	1	EA	LENS, PAR 64 NSP (STIPPLE)
13	53.6523.0013	8	EA	SCREW, 6-32X3/8" LG PTB
14	53.6558.0009	8	EA	SCREW, 6-32X3/8" LG PPZ SEMS
15	53.6558.0010	4	EA	SCREW, 6-32X1/4" PPB SEMS
16	53.6608.0001	8	EA	SCREW, 6-32X3/8" PFB

## VL500 (120V or 240V) Luminaire (continued)



**Figure 3-9: VL500 (120V or 240V) Luminaire**

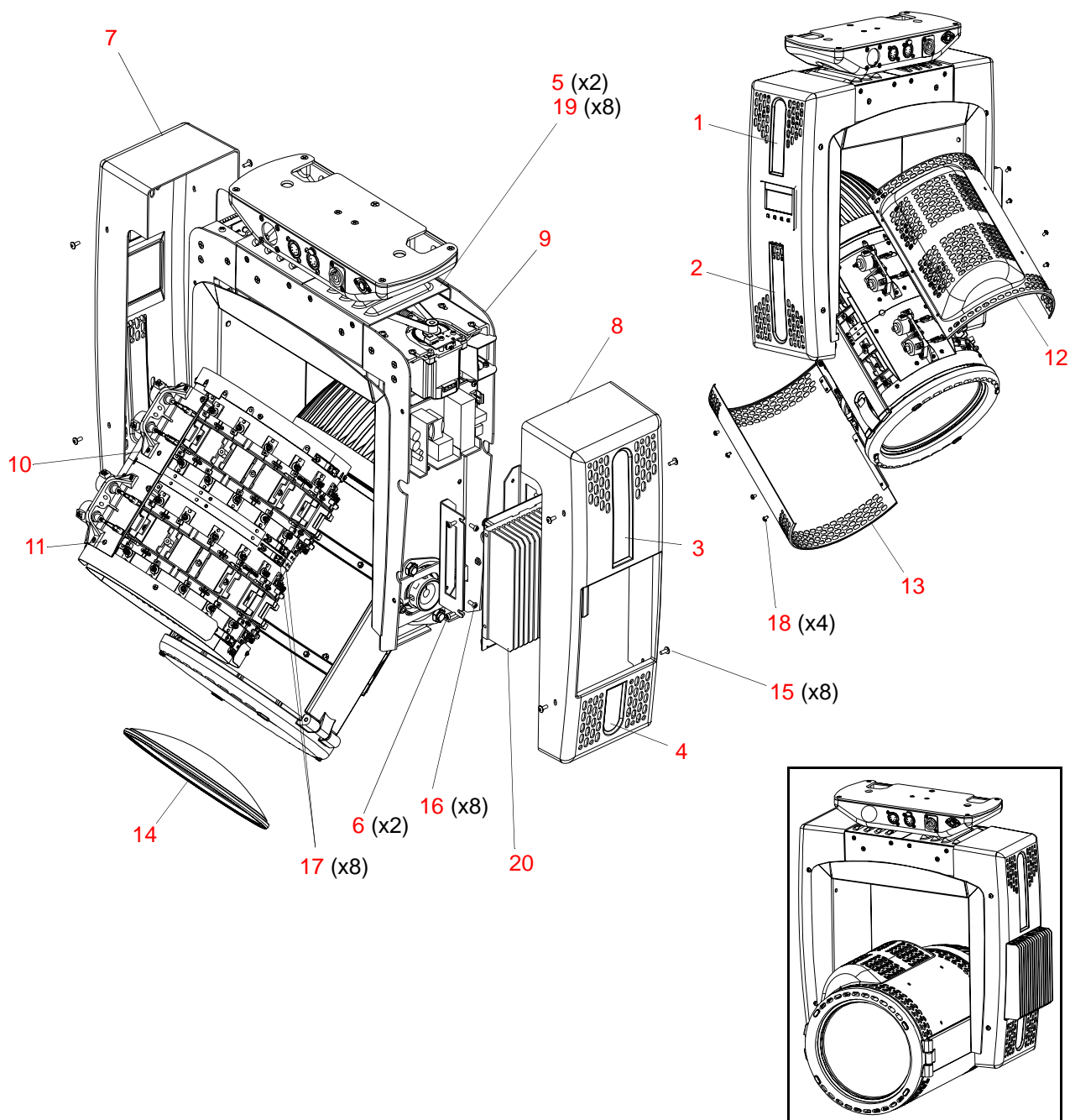
## VL500D (with 120V IGBT Dimmer) Luminaire

20.9685.0002 Rev F (Standard DICRO\*TUNE Colors)  
 20.9685.0012 Rev B (Pastel DICRO\*TUNE Colors)

Refer to [Figure 3-10](#)

No.	Item	Qty.	UM.	Description
1	04.9685.0573	1	EA	LABEL, MCB YOKE COVER
2	04.9685.0574	1	EA	LABEL, MCB YOKE COVER
3	04.9685.0576	1	EA	LABEL, YOKE COVER, DIMMER
4	04.9685.0577	1	EA	LABEL, YOKE COVER, DIMMER
5	10.9685.0525	2	EA	LOUVER PLATE, TOP COVER
6	10.9685.0565	2	EA	MOUNT, DIMMER
7	10.9685.0580	1	EA	YOKE ARM COVER, DISPLAY SIDE
8	10.9685.0582	1	EA	YOKE ARM COVER, DIMMER SIDE
9	<a href="#">21.9685.0011</a>	1	EA	ASSY, GENERIC VL500, INCANDESCENT W/ DIMMER
10	<a href="#">21.9685.0170</a>	1	EA	ASSY, COLOR, MAGENTA / BLUE, STANDARD (20.9685.0002 ONLY)
	<a href="#">21.9685.0174</a>	1	EA	ASSY, COLOR, MAGENTA / BLUE, PASTEL (20.9685.0012 ONLY)
11	<a href="#">21.9685.0171</a>	1	EA	ASSY, COLOR, AMBER / DIFFUSION
12	22.9685.0086	1	EA	HEAD COVER, TOP
13	22.9685.0087	1	EA	HEAD COVER, BOTTOM
-	<a href="#">25.9685.0753</a>	1	EA	CABLE ASSY, VL500 MOTOR (NOT SHOWN)
-	<a href="#">25.9685.0760</a>	1	EA	CABLE ASSY, HEAD GROUNDING (NOT SHOWN)
-	<a href="#">28.9685.0002</a>	1	EA	INCLUDED ITEMS KIT, VL500 INCANDESCENT (NOT SHOWN)
14	42.9685.0207	1	EA	LENS, PAR 64 NSP (STIPPLE)
15	53.6523.0013	8	EA	SCREW, 6-32X3/8" LG PTB
16	53.6558.0001	8	EA	SCREW, 6-32X3/8" LG PPZ
17	53.6558.0009	8	EA	SCREW, 6-32X3/8" LG PPZ SEMS
18	53.6558.0010	4	EA	SCREW, 6-32X1/4" PPB SEMS
19	53.6608.0001	8	EA	SCREW, 6-32X3/8" PFB
20	69.3173.0115	1	EA	DIMMER, 1200W 115V REV PHASE CONT

## VL500D (with 120V IGBT Dimmer) Luminaire (continued)



**Figure 3-10: VL500D (with 120V IGBT Dimmer) Luminaire**

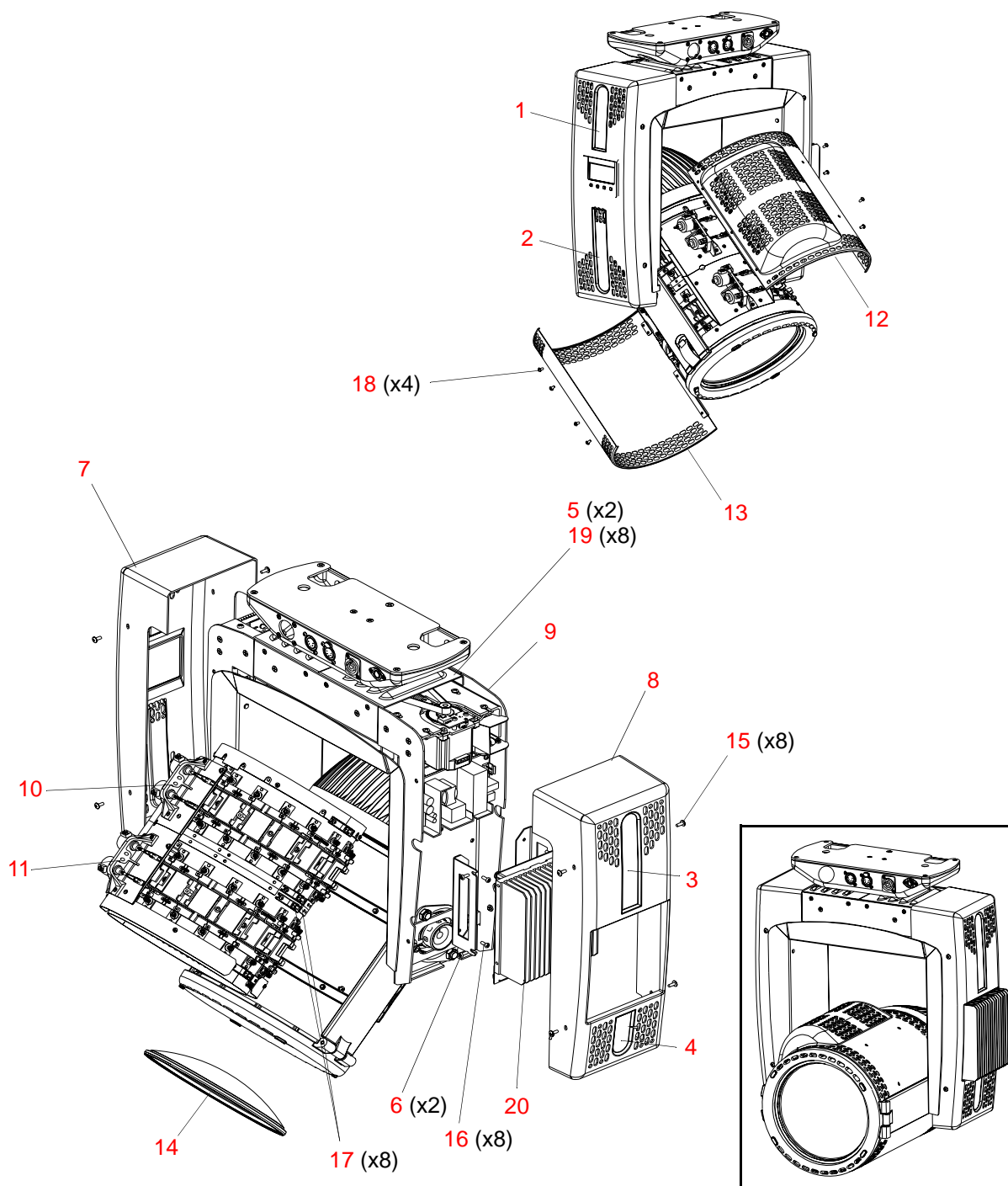
## VL500D (with 240V IGBT Dimmer) Luminaire

20.9685.0003 Rev F (Standard DICRO\*TUNE Colors)  
 20.9685.0013 Rev B (Pastel DICRO\*TUNE Colors)

Refer to [Figure 3-11](#)

No.	Item	Qty.	UM.	Description
1	04.9685.0573	1	EA	LABEL, MCB YOKE COVER
2	04.9685.0574	1	EA	LABEL, MCB YOKE COVER
3	04.9685.0576	1	EA	LABEL, YOKE COVER, DIMMER
4	04.9685.0577	1	EA	LABEL, YOKE COVER, DIMMER
5	10.9685.0525	2	EA	LOUVER PLATE, TOP COVER
6	10.9685.0565	2	EA	MOUNT, DIMMER
7	10.9685.0580	1	EA	YOKE ARM COVER, DISPLAY SIDE
8	10.9685.0582	1	EA	YOKE ARM COVER, DIMMER SIDE
9	<a href="#">21.9685.0011</a>	1	EA	ASSY, GENERIC VL500, INCANDESCENT W/ DIMMER
10	<a href="#">21.9685.0170</a>	1	EA	ASSY, COLOR, MAGENTA / BLUE, STANDARD (20.9685.0003 ONLY)
	<a href="#">21.9685.0174</a>	1	EA	ASSY, COLOR, MAGENTA / BLUE, PASTEL (20.9685.0013 ONLY)
11	<a href="#">21.9685.0171</a>	1	EA	ASSY, COLOR, AMBER / DIFFUSION
12	22.9685.0086	1	EA	HEAD COVER, TOP
13	22.9685.0087	1	EA	HEAD COVER, BOTTOM
-	<a href="#">25.9685.0753</a>	1	EA	CABLE ASSY, VL500 MOTOR (NOT SHOWN)
-	<a href="#">25.9685.0760</a>	1	EA	CABLE ASSY, HEAD GROUNDING (NOT SHOWN)
-	<a href="#">28.9685.0003</a>	1	EA	INCLUDED ITEMS KIT, VL500 INCANDESCENT (NOT SHOWN)
14	42.9685.0207	1	EA	LENS, PAR 64 NSP (STIPPLE)
15	53.6523.0013	8	EA	SCREW, 6-32X3/8" LG PTB
16	53.6558.0001	8	EA	SCREW, 6-32X3/8" LG PPZ
17	53.6558.0009	8	EA	SCREW, 6-32X3/8" LG PPZ SEMS
18	53.6558.0010	4	EA	SCREW, 6-32X1/4" PPB SEMS
19	53.6608.0001	8	EA	SCREW, 6-32X3/8" PFB
20	69.3173.0240	1	EA	DIMMER, 1200W 240V REV PHASE CONT

## VL500D (with 240V IGBT Dimmer) Luminaire (continued)



**Figure 3-11: VL500D (with 240V IGBT Dimmer) Luminaire**



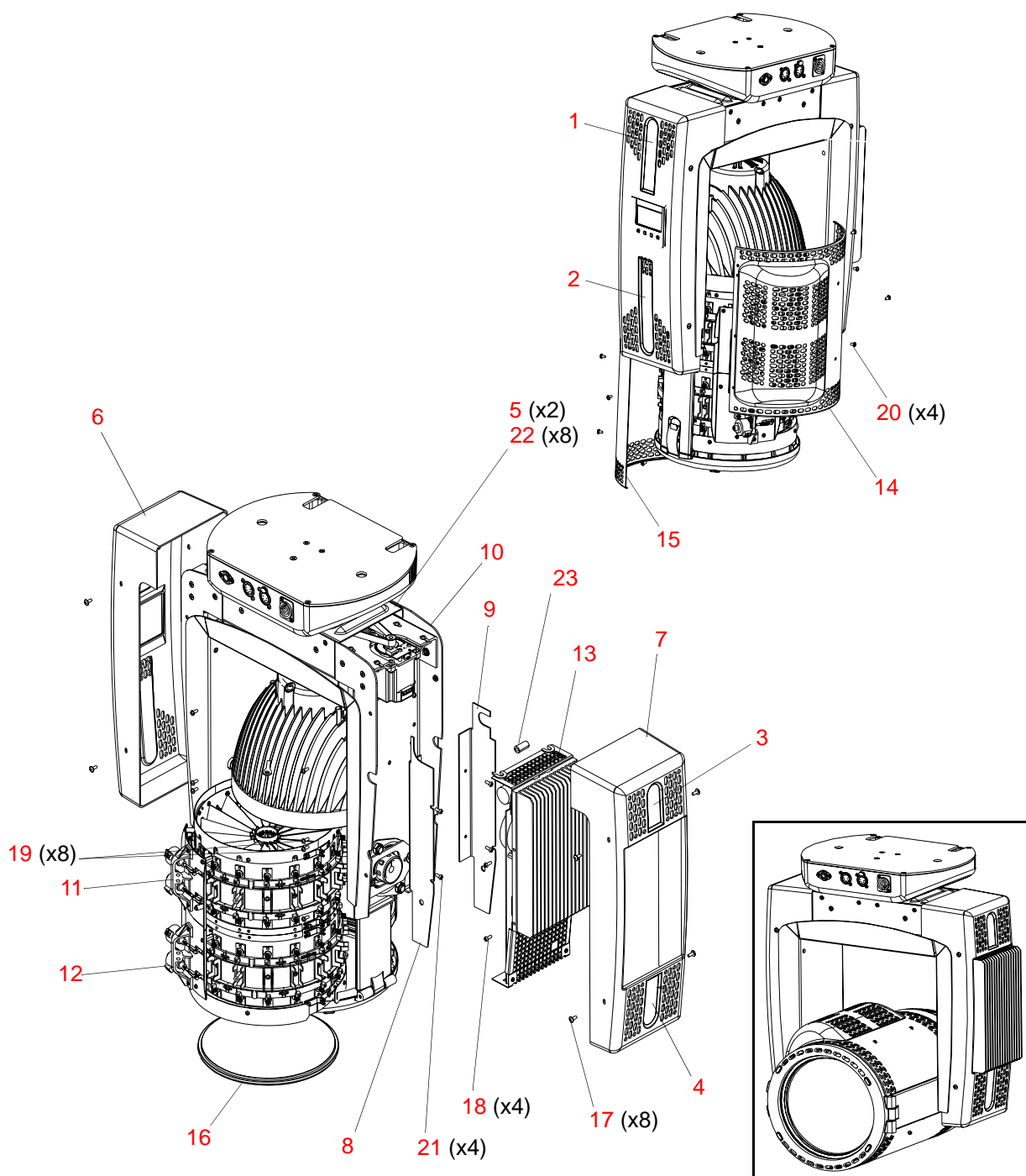
## VL500 80V (with 80V Dimmer) Luminaire

20.9685.0004 Rev L (Standard DICRO\*TUNE Colors)  
20.9685.0014 Rev G (Pastel DICRO\*TUNE Colors)

Refer to [Figure 3-12](#)

No.	Item	Qty.	UM.	Description
1	04.9685.0573	1	EA	LABEL, MCB YOKE COVER
2	04.9685.0574	1	EA	LABEL, MCB YOKE COVER
3	04.9685.0578	1	EA	LABEL, YOKE COVER, 80V DIMMER
4	04.9685.0579	1	EA	LABEL, YOKE COVER, 80V DIMMER
5	10.9685.0525	2	EA	LOUVER PLATE, TOP COVER
6	10.9685.0580	1	EA	YOKE ARM COVER, DISPLAY SIDE
7	10.9685.0586	1	EA	YOKE ARM COVER, 80V DIMMER SIDE
8	10.9685.0870	1	EA	BRACKET, MOUNTING, LEFT, 80V DIMMER
9	10.9685.0871	1	EA	BRACKET, MOUNTING, RIGHT, 80V DIMMER
-	16.9686.0004	1	EA	LABEL INSTALLATION KIT ( <b>NOT SHOWN</b> )
10	<a href="#">21.9685.0012</a>	1	EA	ASSY, GENERIC VL500 80V, INCANDESCENT W/ DIMMER
11	<a href="#">21.9685.0170</a>	1	EA	ASSY, COLOR, MAGENTA / BLUE, STANDARD ( <b>20.9685.0004 ONLY</b> )
	<a href="#">21.9685.0174</a>	1	EA	ASSY, COLOR, MAGENTA / BLUE, PASTEL ( <b>20.9685.0014 ONLY</b> )
12	<a href="#">21.9685.0171</a>	1	EA	ASSY, COLOR, AMBER / DIFFUSION
13	21.9685.2750	1	EA	ASSY, DIMMER, 80V
14	22.9685.0086	1	EA	HEAD COVER, TOP
15	22.9685.0087	1	EA	HEAD COVER, BOTTOM
-	<a href="#">25.9685.0753</a>	1	EA	CABLE ASSY, VL500 MOTOR ( <b>NOT SHOWN</b> )
-	<a href="#">25.9685.0760</a>	1	EA	CABLE ASSY, HEAD GROUNDING ( <b>NOT SHOWN</b> )
-	<a href="#">28.9685.0004</a>	1	EA	INCLUDED ITEMS KIT, VL500 80V INCANDESCENT ( <b>NOT SHOWN</b> )
16	42.9685.0207	1	EA	LENS, PAR 64 NSP (STIPPLE)
17	53.6523.0013	8	EA	SCREW, 6-32X3/8" LG PTB
18	53.6882.0022	4	EA	SCREW, 8-32X3/8" LG PPZ SEMS
19	53.6558.0009	8	EA	SCREW, 6-32X3/8" LG PPZ SEMS
20	53.6558.0010	4	EA	SCREW, 6-32X1/4" PPB SEMS
21	53.6558.0001	4	EA	SCREW, 6-32 X 3/8" LG PPZ
22	53.6608.0001	8	EA	SCREW, 6-32X3/8" PFB
-	55.2186.0001	1	EA	CABLE TIE, .10 X 4" SMALL ( <b>NOT SHOWN</b> )
23	67.4006.0007	1	EA	CLAMP, CABLE EMI SUP. FERRITE 0.193" ID

## VL500 80V (with 80V Dimmer) Luminaire (continued)



**Figure 3-12: VL500 80V (with 80V Dimmer) Luminaire**

## VL500A (700W Arc) Luminaire

20.9685.0006 Rev H (Standard DICRO\*TUNE Colors)  
20.9685.0016 Rev B (Pastel DICRO\*TUNE Colors)

Refer to [Figure 3-13](#)

No.	Item	Qty.	UM.	Description
1	04.9685.0573	1	EA	LABEL, MCB YOKE COVER
2	04.9685.0574	1	EA	LABEL, MCB YOKE COVER
3	04.9685.0588	1	EA	LABEL, YOKE COVER, PLAIN, VL500
4	10.9685.0525	2	EA	LOUVER PLATE, TOP COVER
5	10.9685.0580	1	EA	YOKE ARM COVER, DISPLAY SIDE
6	10.9685.0584	1	EA	YOKE ARM COVER, IGNITOR SIDE
7	<a href="#">21.9685.0013</a>	1	EA	ASSY, GENERIC VL500, ARC
8	<a href="#">21.9685.0172</a>	1	EA	ASSY, COLOR, AMBER / DIMMER
9	<a href="#">21.9685.0173</a>	1	EA	ASSY, COLOR, MAGENTA / BLUE, ARC, STANDARD ( <b>20.9685.0006 ONLY</b> )
	<a href="#">21.9685.0175</a>	1	EA	ASSY, COLOR, MAGENTA / BLUE, ARC, PASTEL ( <b>20.9685.0016 ONLY</b> )
-	<a href="#">21.9685.0802</a>	1	EA	ASSY, BALLAST, 700W EXTERNAL ( <b>NOT SHOWN</b> )
10	22.9685.0086	1	EA	HEAD COVER, TOP
11	22.9685.0087	1	EA	HEAD COVER, BOTTOM
-	<a href="#">25.9685.0753</a>	1	EA	CABLE ASSY, VL500 MOTOR
-	<a href="#">25.9685.0755</a>	1	EA	CABLE ASSY, RELAY HARNESS ( <b>NOT SHOWN</b> )
-	<a href="#">25.9685.0760</a>	1	EA	CABLE ASSY, HEAD GROUNDING ( <b>NOT SHOWN</b> )
-	<a href="#">25.9685.0767</a>	1	EA	CABLE ASSY, BALLAST INTERCONNECT, 700W ( <b>NOT SHOWN</b> )
-	<a href="#">28.9685.0006</a>	1	EA	INCLUDED ITEMS KIT, VL500 ARC ( <b>NOT SHOWN</b> )
12	42.9685.0207	1	EA	LENS, PAR 64 NSP (STIPPLE)
13	53.6523.0013	8	EA	SCREW, 6-32X3/8" LG PTB
14	53.6558.0009	8	EA	SCREW, 6-32X3/8" LG PPZ SEMS
15	53.6558.0010	4	EA	SCREW, 6-32X1/4" PPB SEMS
16	53.6608.0001	8	EA	SCREW, 6-32X3/8" PFB

## VL500A (700W Arc) Luminaire (continued)

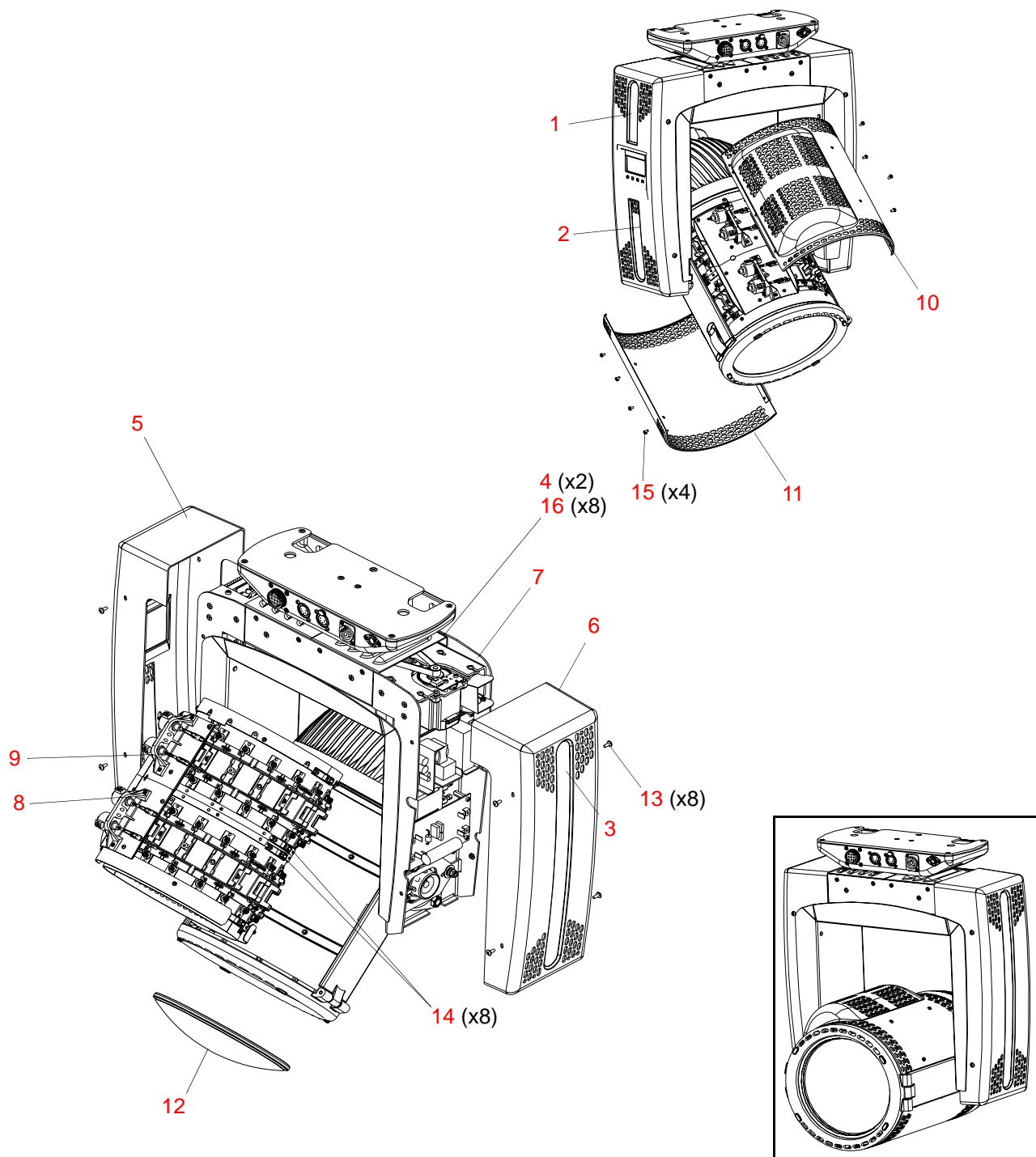


Figure 3-13: VL500A Luminaire (700W Arc)

## Generic VL500 Luminaire Assembly

21.9685.0010 Rev S (Incandescent - without Internal Dimmer)  
 21.9685.0011 Rev S (Incandescent - with Internal IGBT Dimmer)  
 21.9685.0012 Rev S (Incandescent - with Internal 80V Dimmer)  
 21.9685.0013 Rev S (Arc)

Refer to [Figure 3-14](#), [Figure 3-15](#), and [Figure 3-16](#)

No.	Item	Qty.	UM.	Description
1	10.9685.0521	1	EA	PULLEY, DRIVEN, PAN/TILT
2	10.9685.0542	1	EA	SHIELD, WIRE, LVS
3	10.9685.0555	1	EA	LENS, DISPLAY, VL500
4	10.9685.0556	1	EA	OVERLAY, DISPLAY, VL500
5	10.9685.0564	1	EA	PANEL, TILT, CLOSEOUT
6	10.9685.0566	1	EA	PLATE, TILT LOCK
7	10.9685.0567	1	EA	HEAT SHIELD, TILT SIDE
8	10.9685.0568	1	EA	HEAT SHIELD, DIMMER/POWER SUPPLY SIDE
9	10.9685.1569	1	EA	HEAT SHIELD, CROSSMEMBER
10	10.9685.0570	1	EA	SPACER, TILT TUBE
11	10.9685.0571	2	EA	PLUG, TILT TUBE
12	10.9685.0572	1	EA	CONTERWEIGHT, VL500 (VL500 80V ONLY)
	10.9685.0575	1	EA	CONTERWEIGHT, VL500 (VL500D ONLY)
13	<a href="#">21.9685.0310</a>	1	EA	ASSY, GENERIC VL500, INCANDESCENT (VL500 AND VL500D ONLY)
14	<a href="#">21.9685.0311</a>	1	EA	ASSY, GENERIC VL500, ARC (VL500A ONLY)
15	<a href="#">21.9685.0312</a>	1	EA	ASSY, GENERIC VL500, INCANDESCENT, 80V (VL500 80V ONLY)
16	<a href="#">21.9685.0520</a>	1	EA	ASSY, YOKE, BASE, INCANDESCENT (VL500 ONLY)
17	<a href="#">21.9685.0521</a>	1	EA	ASSY, YOKE, BASE, INTERNAL IGBT DIMMER (VL500D ONLY)
18	<a href="#">21.9685.0522</a>	1	EA	ASSY, YOKE, BASE, EXTERNAL BALLAST (VL500A ONLY)
19	<a href="#">21.9685.0523</a>	1	EA	ASSY, YOKE, BASE, INTERNAL 80V DIMMER (VL500 80V ONLY)
20	<a href="#">21.9685.0731</a>	1	EA	ASSY, MCB / FAN
21	23.9650.3327	1	EA	RELAY, ELECTRICAL ASSY (VL500A ONLY)
22	24.9685.4826	1	EA	ASSY, VL500 DISPLAY BOARD
23	24.9685.1000	1	EA	IGNITOR, ARC (VL500A ONLY)
-	<a href="#">25.9685.0776</a>	2	EA	YOKE LAMP JUMPER WIRES (VL500 ONLY) (NOT SHOWN)
24	53.2001.0003	8	EA	NUT, 10-32 HEX NYLON INSERT
25	53.2019.0004	8	EA	NUT, 3/8-16X7/32" THK HEX JAM G
26	53.6539.0001	2	EA	WASHER, 3/8" SPLIT LOCK

<b>No.</b>	<b>Item</b>	<b>Qty.</b>	<b>UM.</b>	<b>Description</b>
27	53.6558.0009	11	EA	SCREW, 6-32X3/8", PPZ, SEMS ( <b>VL500 ONLY</b> )
	53.6558.0009	10	EA	SCREW, 6-32X3/8", PPZ, SEMS ( <b>VL500D AND VL500 80V ONLY</b> )
	53.6558.0009	14	EA	SCREW, 6-32X3/8", PPZ, SEMS ( <b>VL500A ONLY</b> )
28	53.6558.0010	4	EA	SCREW, 6-32X1/4", PPB, SEMS
29	53.6596.0002	2	EA	SCREW, 4-40X5/16" LG PPZ SEMS ( <b>VL500A ONLY</b> )
30	53.6608.0001	4	EA	SCREW, 6-32X3/8", PFB
31	53.6634.0003	4	EA	SCREW, 3/8-16X1/2" SOC HD CAP
32	53.6634.1000	2	EA	SCREW, 3/8-16X1.00" SOC HD CAP
33	54.1206.0021	1	EA	RING, RETAINING, 1.562" SHAFT
34	54.1255.0002	2	EA	ASSY, BEARING/HOUSING
35	54.1261.0001	2	EA	BUSHING, LOW DAMP THRMOPLS.189
36	54.2066.0001	1	EA	BELT, TIMING, S2M, 396 GRV, 9MM WIDE
-	55.2178.0001	1	EA	CABLE SADDLE, #6 MOUNTING HOLE ( <b>VL500 ONLY</b> ) ( <b>NOT SHOWN</b> )
37	55.2287.0001	4	EA	STANDOFF, MF 6-32X9/32" LG, 1/4" HEX
38	55.2288.0001	4	EA	STANDOFF, MF 6-32X13/16" LG, 1/4" HEX ( <b>VL500/VL500D/VL500 80V ONLY</b> )
	55.2288.0001	12	EA	STANDOFF, MF 6-32X13/16" LG, 1/4" HEX ( <b>VL500A ONLY</b> )
39	55.3301.0010	2	EA	WASHER, #10 FLAT
40	55.6517.0001	2	EA	WASHER, 0.375" OD, 0.150 ID, 0.031" THK ( <b>VL500A ONLY</b> )
41	55.6677.0041	2	EA	WASHER, 0.750" OD, 0.203" ID, 0.04" THK
42	69.3178.0121	1	EA	POWER SUPPLY, 120W +24V 3X5 ( <b>VL500/VL500D/VL500A ONLY</b> )

## Generic VL500 Luminaire Assembly (continued)

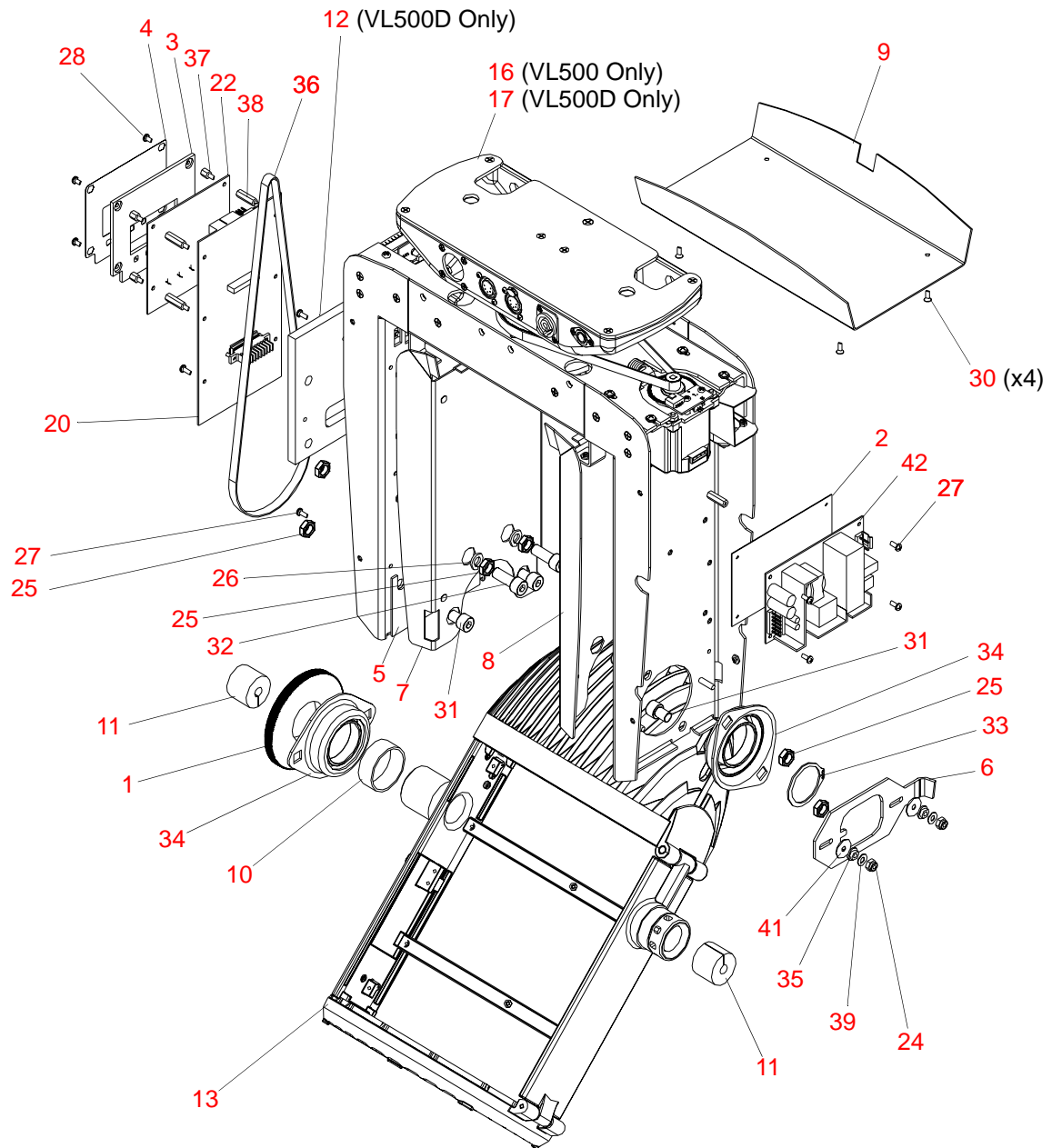


Figure 3-14: Generic VL500 Luminaire Assembly (VL500 and VL500D)

## Generic VL500 Luminaire Assembly (continued)

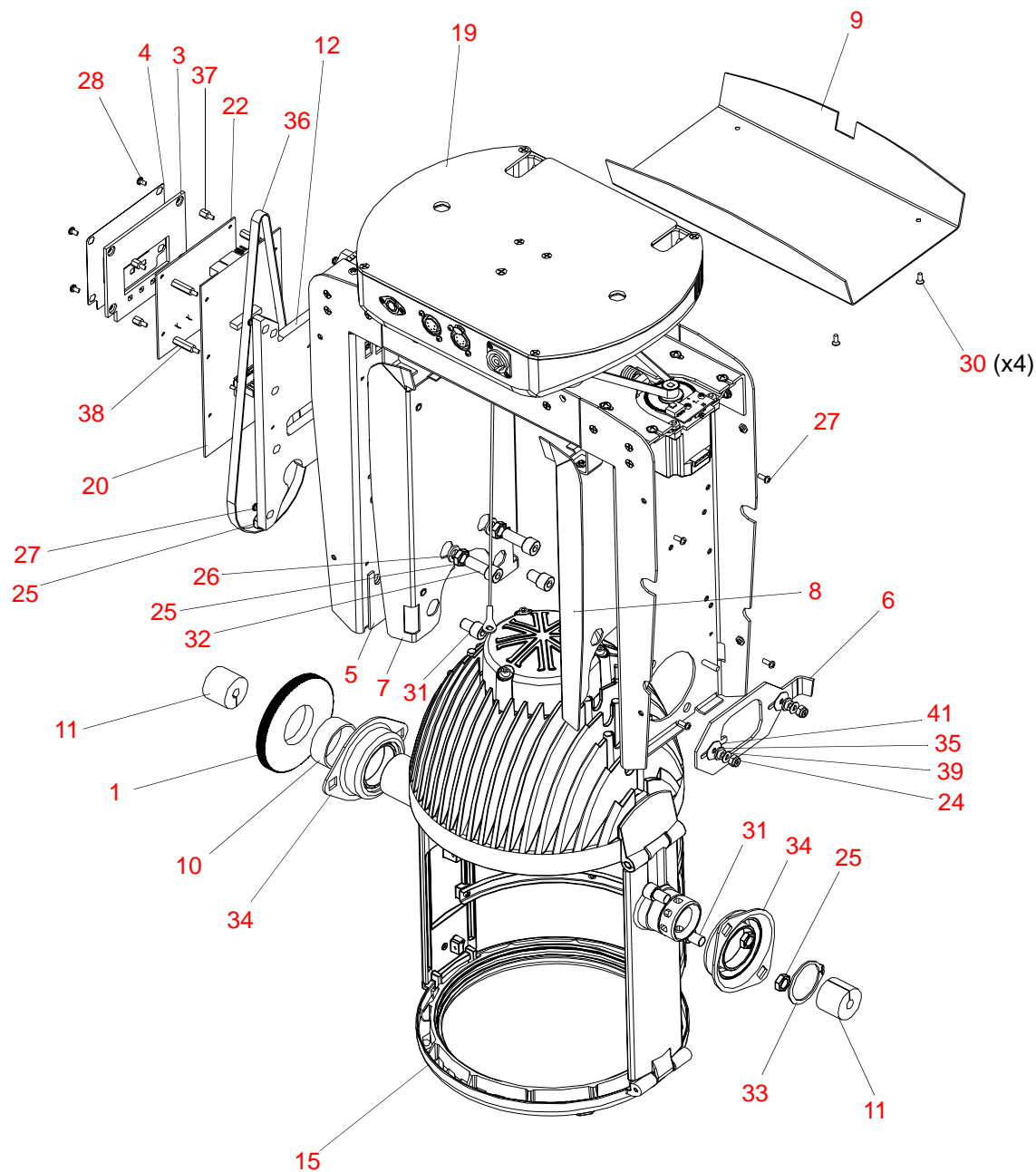
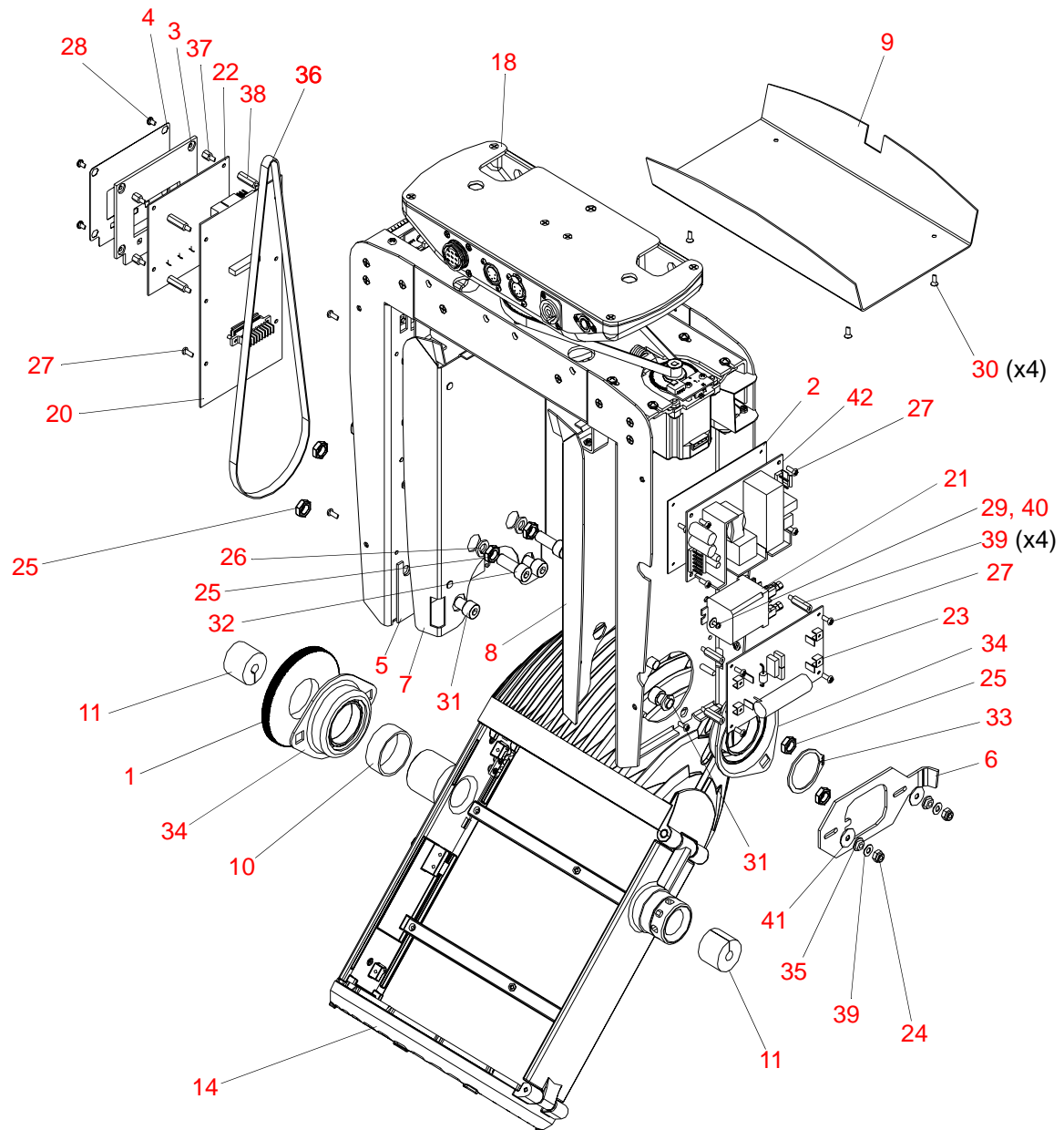


Figure 3-15: Generic VL500 Luminaire Assembly (VL500 80V)



## Generic VL500 Luminaire Assembly (continued)



**Figure 3-16: Generic VL500 Luminaire Assembly (VL500A)**

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## Notes

# Head Assembly

## VL500 Generic Head Assembly

21.9685.0310 (VL500 and VL500D) Rev K

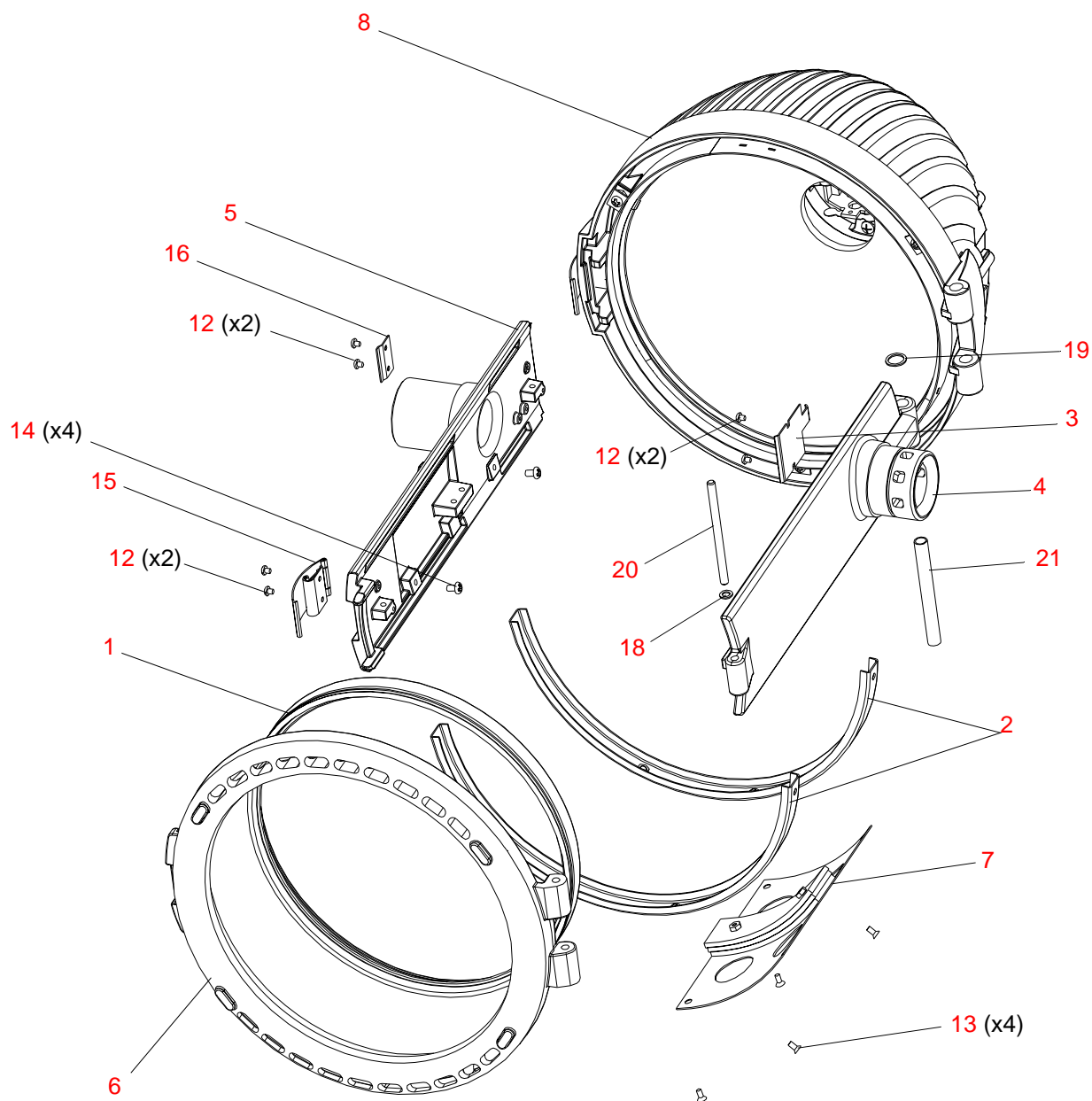
21.9685.0311 (VL500A) Rev K

21.9685.0312 (VL500 80V) Rev K

Refer to [Figure 3-17](#), [Figure 3-18](#), and [Figure 3-19](#).

No.	Item	Qty.	UM.	Description
1	10.9634.0162	2.125	FT	GASKET, LENS, FRONT CASTING
2	10.9685.0340	2	EA	SUPPORT, RIB
3	10.9685.0344	1	EA	COVER, LAMP WIRE
4	12.9685.1331	1	EA	SIDE RAIL, HINGE, MACHINED CASTING
5	12.9685.0333	1	EA	SIDE RAIL, LATCH, MACHINED CASTING
6	12.9685.0388	1	EA	FRONT RING, VL500
7	21.9685.0315	1	EA	ASSY, COUNTERWEIGHT SUPPORT
8	<a href="#">21.9685.0320</a>	1	EA	ASSY, HEATSINK, INCANDESCENT (VL500/VL500D ONLY)
9	<a href="#">21.9685.0321</a>	1	EA	ASSY, HEATSINK, ARC (VL500A ONLY)
10	<a href="#">21.9685.0322</a>	1	EA	ASSY, HEATSINK, 80V INCANDESCENT (VL500 80V ONLY)
11	25.9685.0350	1	EA	CABLE ASSY, DISCONNECT (VL500A ONLY)
12	53.6556.0004	6	EA	SCREW, 4-40X1/8" LG PPB
13	53.6598.0187	4	EA	SCREW, 4-40X0.187" LG PFB UNDERCUT HD
14	53.6607.0001	4	EA	SCREW, 6-32X1/4" LG PPB
15	54.1226.0001	1	EA	LATCH ASSEMBLY
16	54.1226.0002	1	EA	STRIKE, LATCH
17	55.2203.0001	2	EA	SCREW, 4-40X1/4" LG PPZ (VL500A ONLY)
18	55.3500.0002	1	EA	WASHER, #10 FIBRE FLAT 0.196" ID
19	55.3500.0003	1	EA	WASHER, 3/8" FIBRE FLAT 0.385" ID
20	55.6612.0005	1	EA	PIN, FRONT CASTING PIVOT
21	55.6612.0009	1	EA	PIN, REAR CASTING PIVOT

## VL500 Generic Head Assembly (continued)



**Figure 3-17: VL500 Generic Head Assembly (VL500 and VL500D)**

## VL500 Generic Head Assembly (continued)

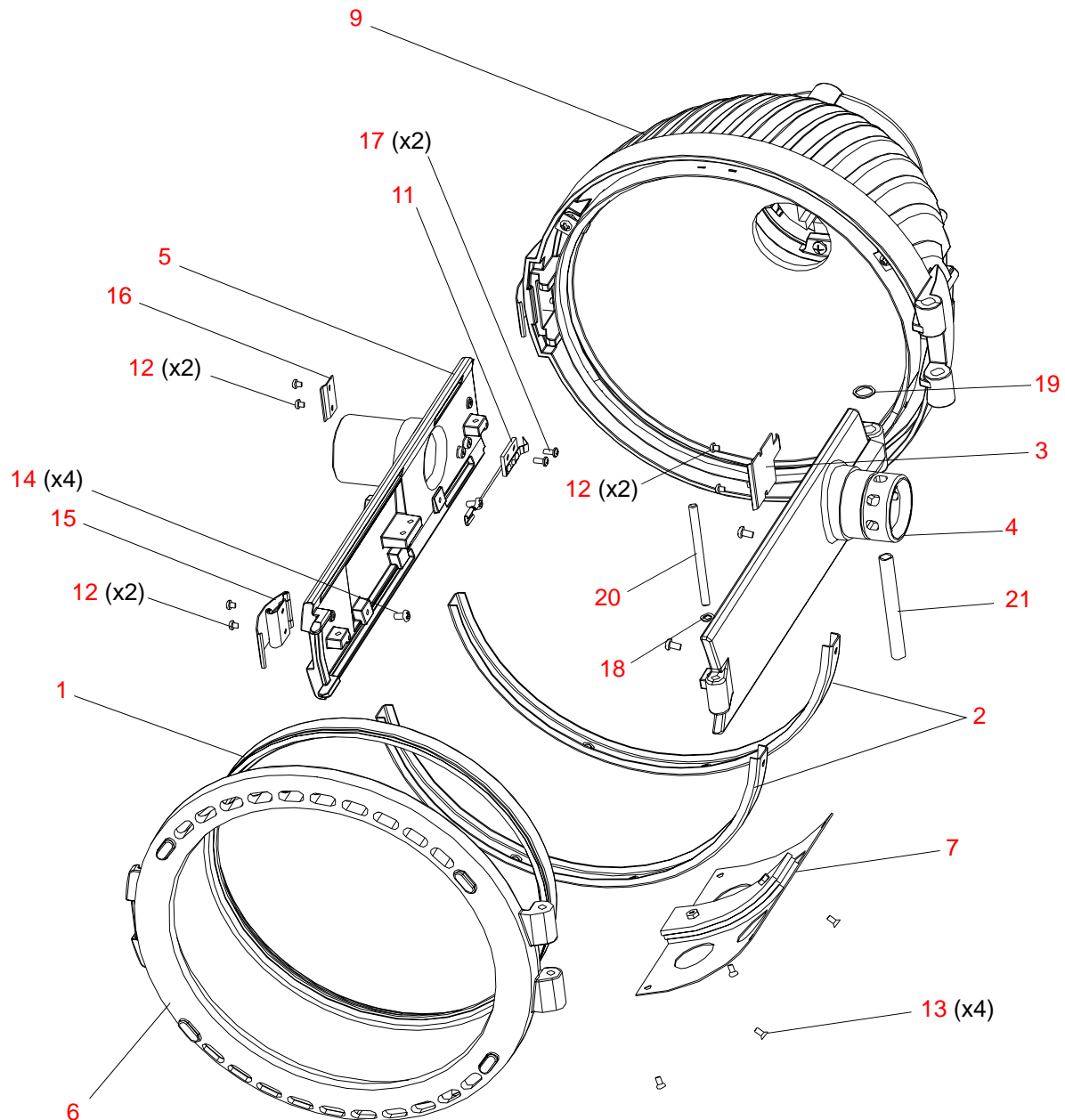
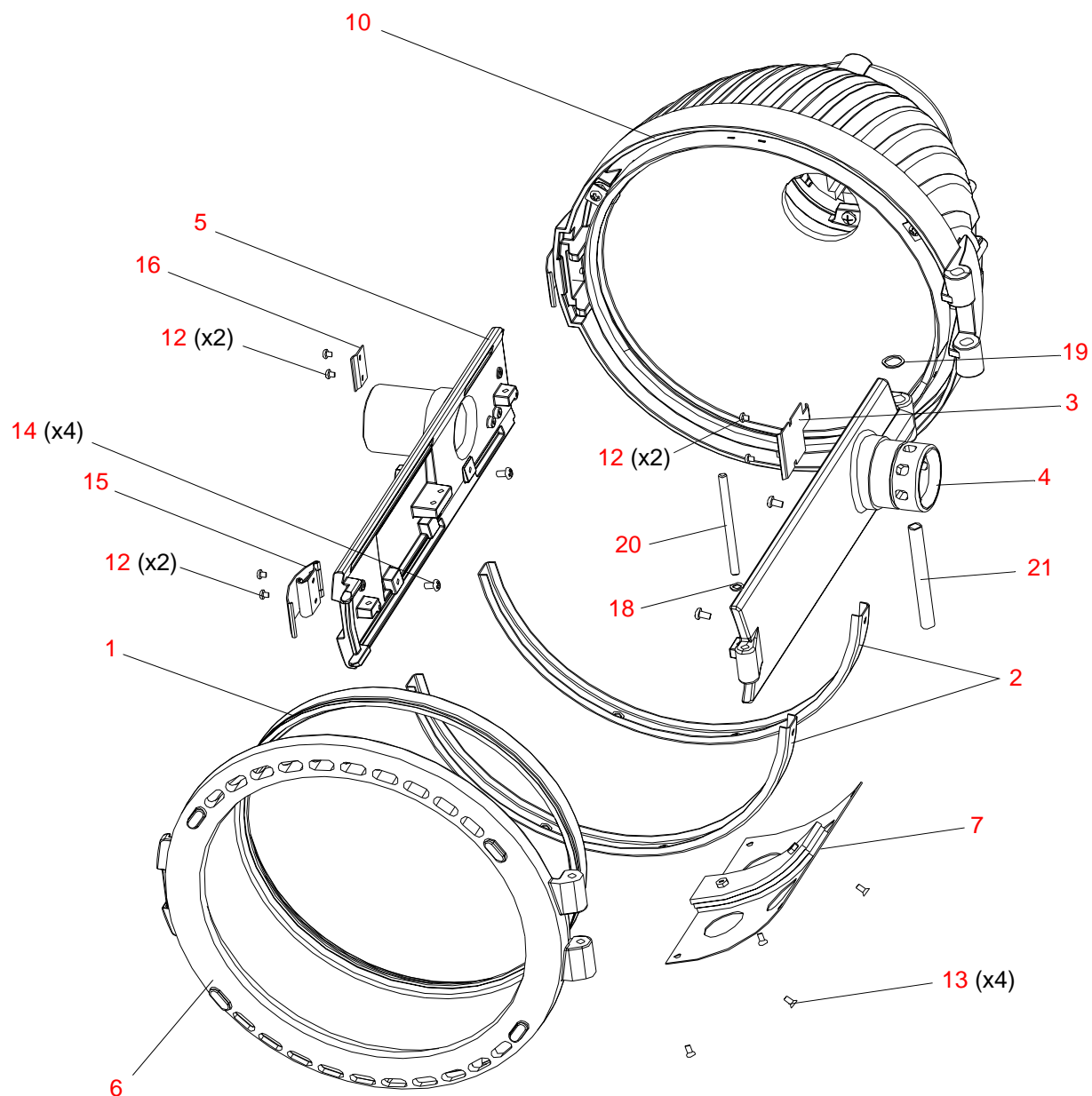


Figure 3-18: VL500 Generic Head Assembly (VL500A)

## VL500 Generic Head Assembly (continued)



**Figure 3-19: VL500 Generic Head Assembly (VL500 80V)**

## Heatsink Assembly

21.9685.0320 (VL500 and VL500D) Rev H

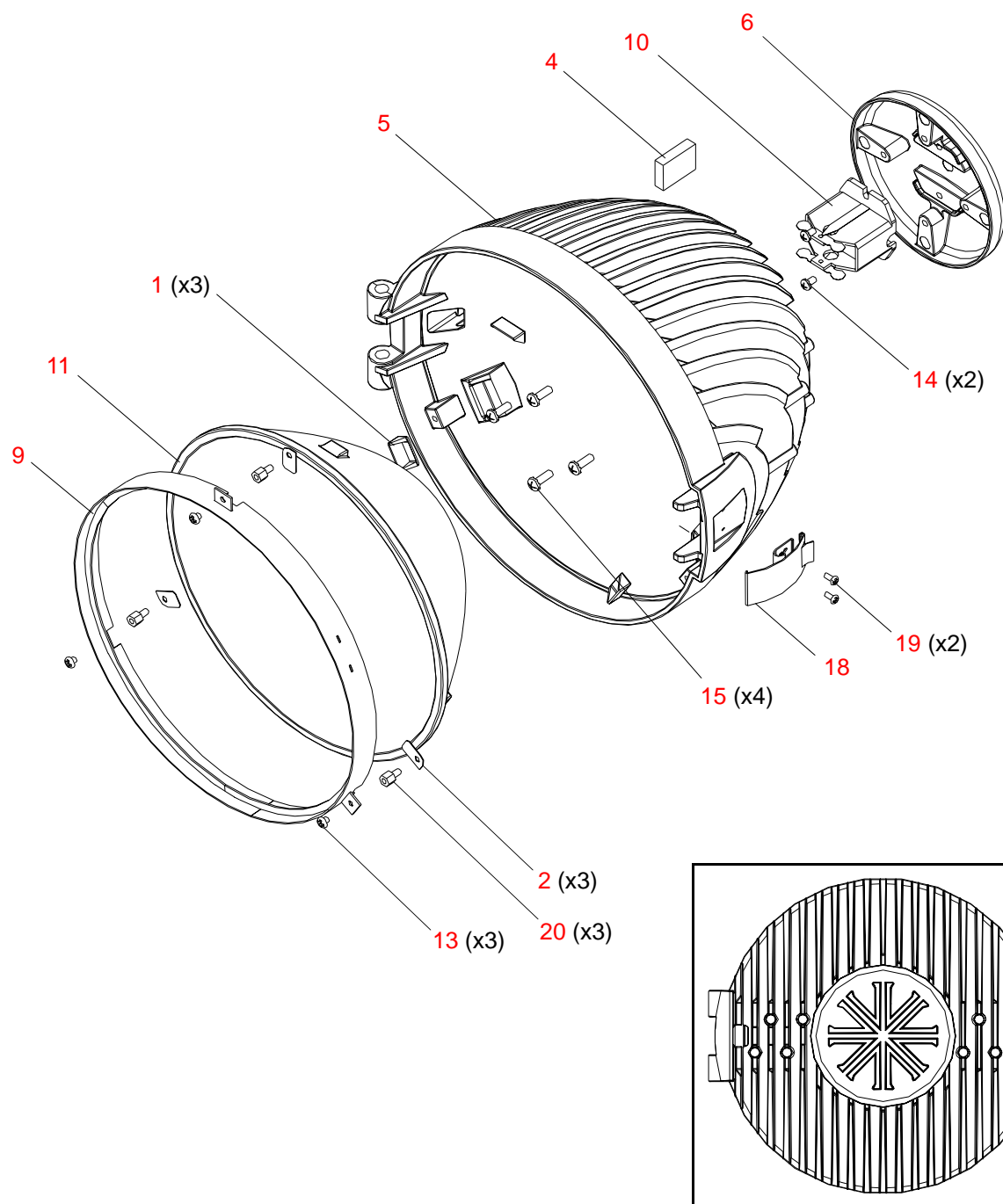
21.9685.0321 (VL500A) Rev H

21.9685.0322 (VL500 80V) Rev H

Refer to [Figure 3-20](#), [Figure 3-21](#), and [Figure 3-22](#).

No.	Item	Qty.	UM.	Description
1	10.9634.0103	3	EA	PAD, REFLECTOR MOUNT
2	10.9685.0343	3	EA	CLIP, REFLECTOR
3	10.9685.0345	2	EA	CLIP, SOCKET (VL500A AND VL500 80V ONLY)
4	10.9685.0360	1	EA	FOAM, HEATSINK LIGHT LEAK
5	12.9685.0335	1	EA	HEATSINK, MACHINED CASTING
6	12.9685.0337	1	EA	BACKCAP, INCANDESCENT, MACHINED CASTING (VL500 ONLY)
7	12.9685.0339	1	EA	BACKCAP, ARC, MACHINED CASTING (VL500A AND VL500 80V ONLY)
8	12.9685.0346	1	EA	BACKCAP, EXTENSION, HEATSINK, MODIFIED (VL500A AND VL500 80V ONLY)
9	22.9685.0215	1	EA	LIGHT BAFFLE, REFLECTOR
10	23.9685.0780	1	EA	ASSY, VL500 LAMP SOCKET, HIGH TEMP (VL500 ONLY)
-	<a href="#">25.9685.0766</a>	1	EA	700W ARC LAMP WIRES, IGNITOR TO SOCKET (VL500A ONLY) (NOT SHOWN)
-	<a href="#">25.9685.0793</a>	1	EA	80V LAMP WIRE HARNESS (VL500 80V ONLY) (NOT SHOWN)
-	<a href="#">25.9685.0777</a>	1	EA	CABLE ASSY, BACKCAP GROUND (NOT SHOWN)
11	42.9685.7190	1	EA	REFLECTOR, PARABOLIC
12	53.6515.1000	3	EA	SCREW, 10-32X1" LG SCB (VL500 80V ONLY)
13	53.6543.0002	3	EA	SCREW, 6-32X1/8" LG PPB
14	53.6558.0007	2	EA	SCREW, 6-32X1/4" LG PPZ SEM (VL500 ONLY)
15	53.6575.0010	4	EA	SCREW, 8-32X1/2" LG PPZ SEM
16	53.6682.0022	2	EA	SCREW, 8-32X3/8" LG PPZ SEM (VL500A AND VL500 80V ONLY)
17	53.6594.0001	3	EA	SCREW, 10-32X1-1/2" LG PPB (VL500A ONLY)
18	54.1226.0001	1	EA	ASSY, LATCH
19	55.2203.0002	2	EA	SCREW, 4-40X1/4" LG PPB
20	55.2132.0013	3	EA	STANDOFF, 1/4 HEX X 0.218" LG 6-32 MF
21	55.6568.0022	3	EA	SPRING, CPRSN 0.300" OD, 1.25" LG (VL500A ONLY)
22	55.6635.0010	3	EA	WASHER, #10 SPHERICAL (VL500A AND VL500 80V ONLY)
23	71.2560.0001	1	EA	SOCKET, LAMP, ARC (VL500A AND VL500 80V ONLY)

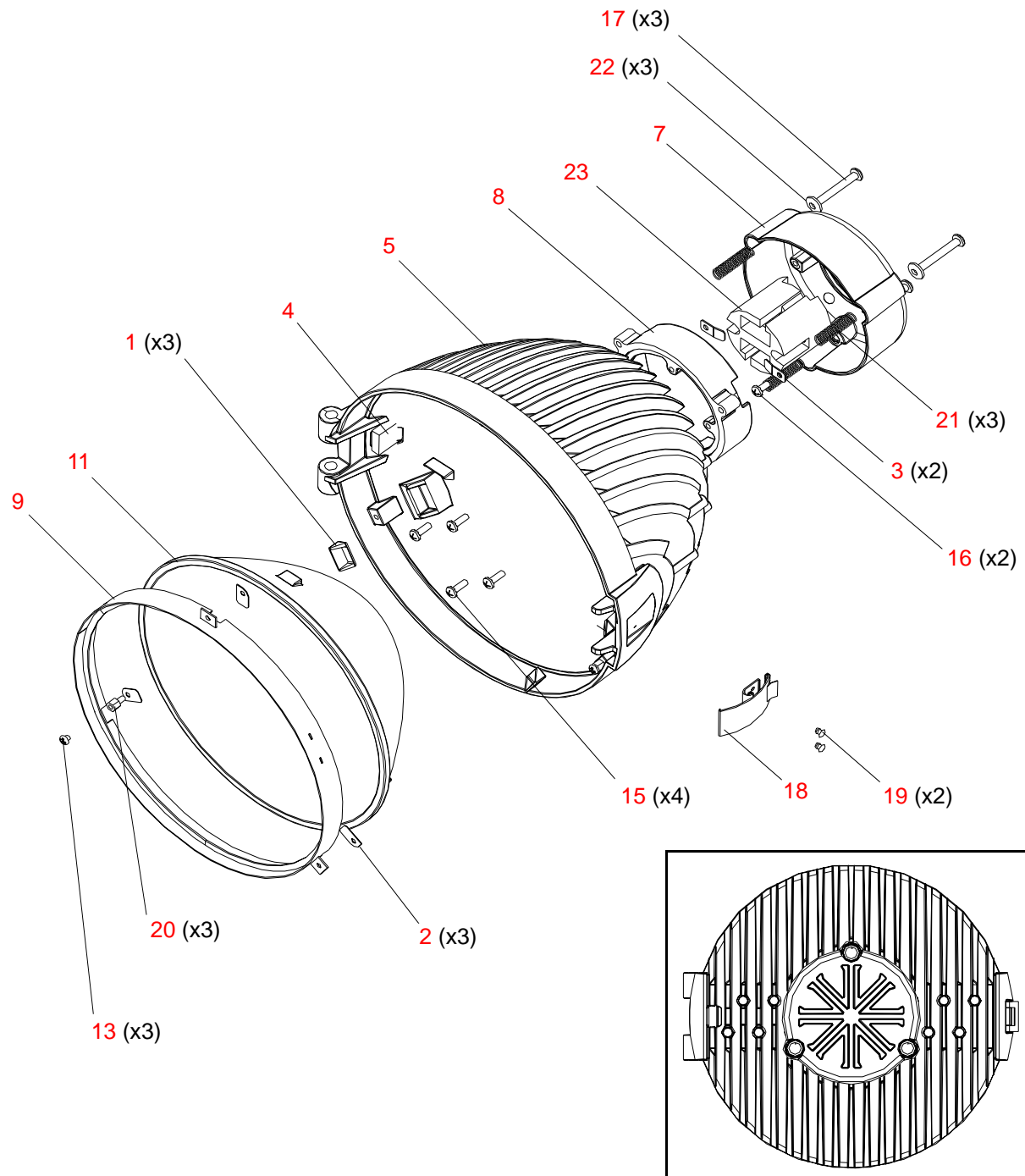
## VL500 Heatsink Assembly (continued)



**Figure 3-20: VL500 Heatsink Assembly (VL500 and VL500D)**

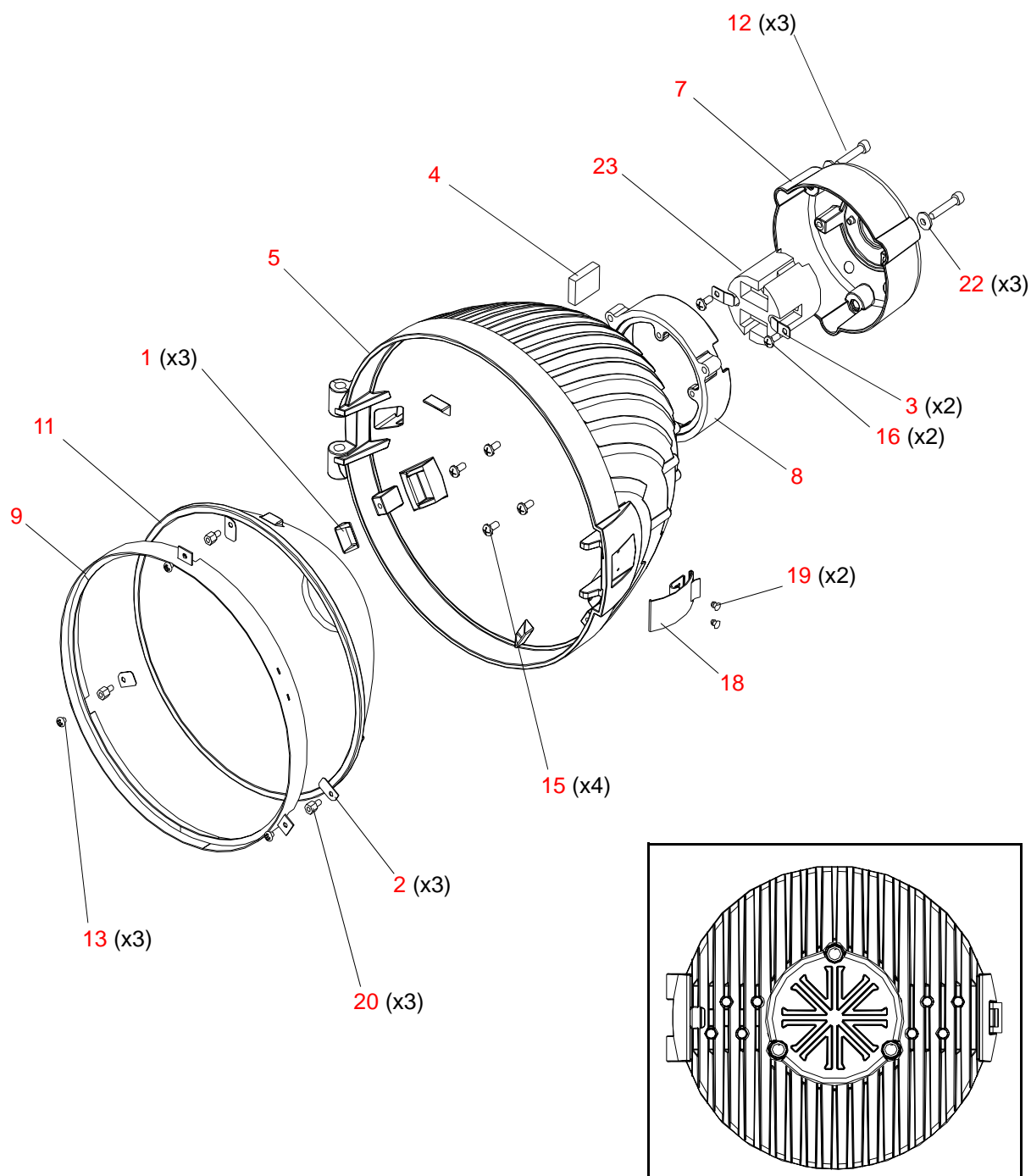


## VL500 Heatsink Assembly (continued)



**Figure 3-21: VL500 Heatsink Assembly (VL500A)**

## VL500 Heatsink Assembly (continued)



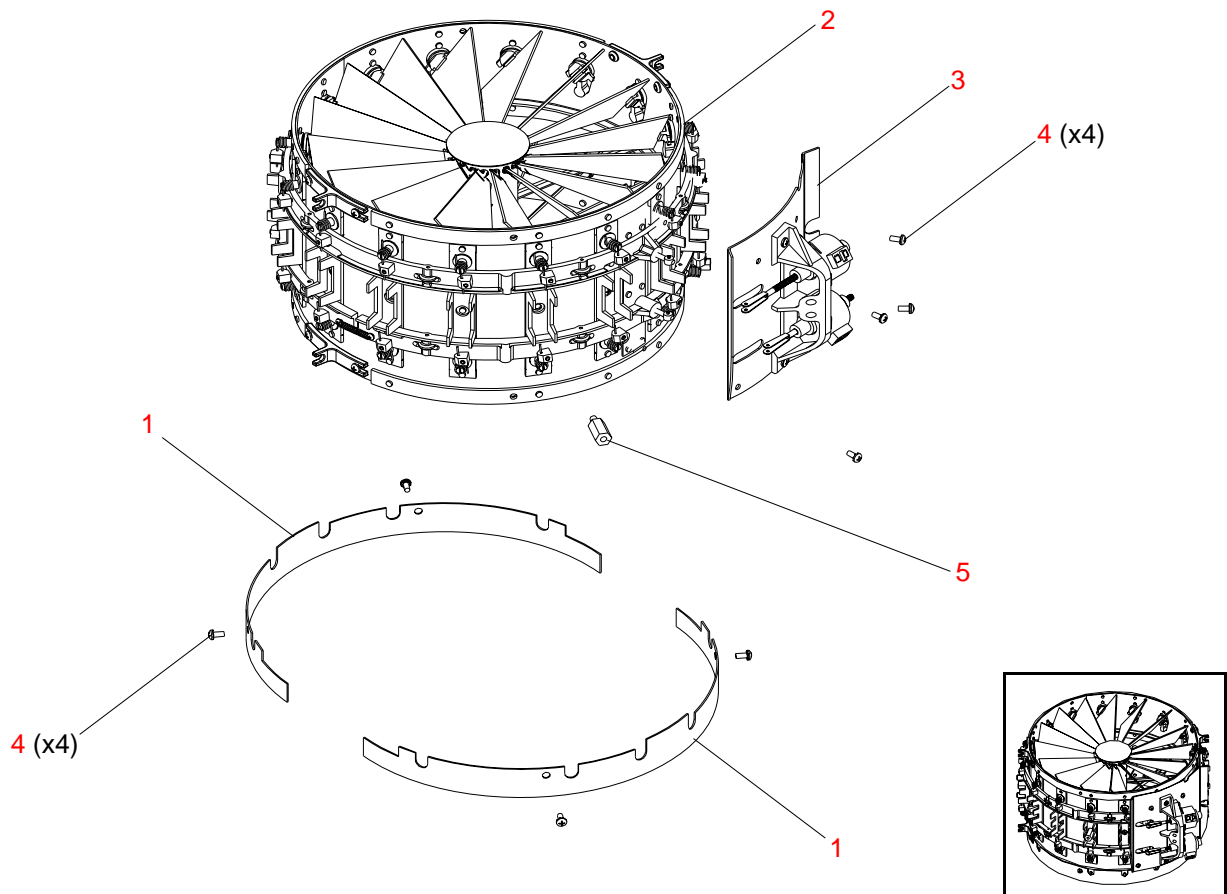
**Figure 3-22: VL500 Heatsink Assembly (VL500 80V)**

## VL500 Magenta/Blue Color Assembly

21.9685.0170 Rev H (Standard DICRO\*TUNE Colors)

Refer to [Figure 3-23](#).

No.	Item	Qty.	UM.	Description
1	10.9685.0257	2	EA	LIGHT BAFFLE, REAR BULKHEAD
2	<a href="#">21.9685.0160</a>	1	EA	ASSY, MAGENTA/BLEUE, STANDARD, DICRO*TUNE
3	<a href="#">21.9685.0280</a>	1	EA	MOTOR ASSY, MAG/BLUE
4	53.6592.0250	8	EA	SCREW, 4-40X1/4" PPB SEMS
5	55.6704.0015	1	EA	STANDOFF, 5/16" HEX, 6-32X0.593" LG



**Figure 3-23: VL500 Magenta/Blue Color Assembly**

## VL500 Magenta/Blue (Pastel) Color Assembly

21.9685.0174 Rev A (Pastel DICRO\*TUNE Colors)

Refer to [Figure 3-24](#).

No.	Item	Qty.	UM.	Description
1	10.9685.0257	2	EA	LIGHT BAFFLE, REAR BULKHEAD
2	<a href="#">21.9685.0164</a>	1	EA	ASSY, MAGENTA/BBLUE, PASTEL, DICRO*TUNE
3	<a href="#">21.9685.0280</a>	1	EA	MOTOR ASSY, MAG/BLUE
4	53.6592.0250	8	EA	SCREW, 4-40X1/4" PPB SEMS
5	55.6704.0015	1	EA	STANDOFF, 5/16" HEX, 6-32X0.593" LG

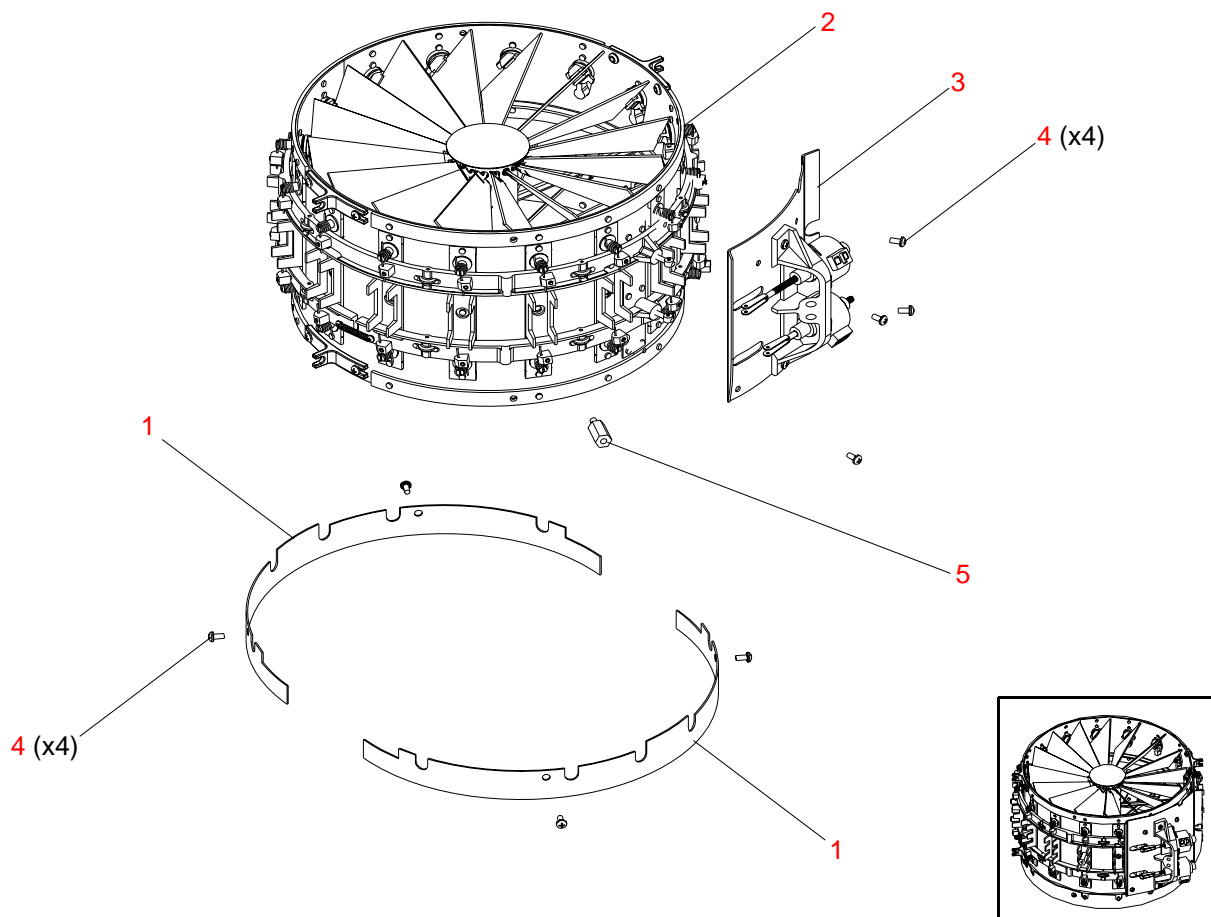


Figure 3-24: VL500 Magenta/Blue (Pastel) Color Assembly

## VL500 Amber/Diffuser Color Assembly

21.9685.0171 Rev G

Refer to [Figure 3-25](#).

No.	Item	Qty.	UM.	Description
1	10.9685.0245	2	EA	LIGHT BAFFLE, TOP
2	<a href="#">21.9685.0161</a>	1	EA	ASSY, AMBER/DIFFUSER, DICRO*TUNE
3	<a href="#">21.9685.0281</a>	1	EA	MOTOR ASSY, AMBER/DIFFUSER
4	53.6592.0250	8	EA	SCREW, 4-40X1/4" PPB SEMS
5	55.6704.0015	1	EA	STANDOFF, 5/16" HEX, 6-32X0.593" LG

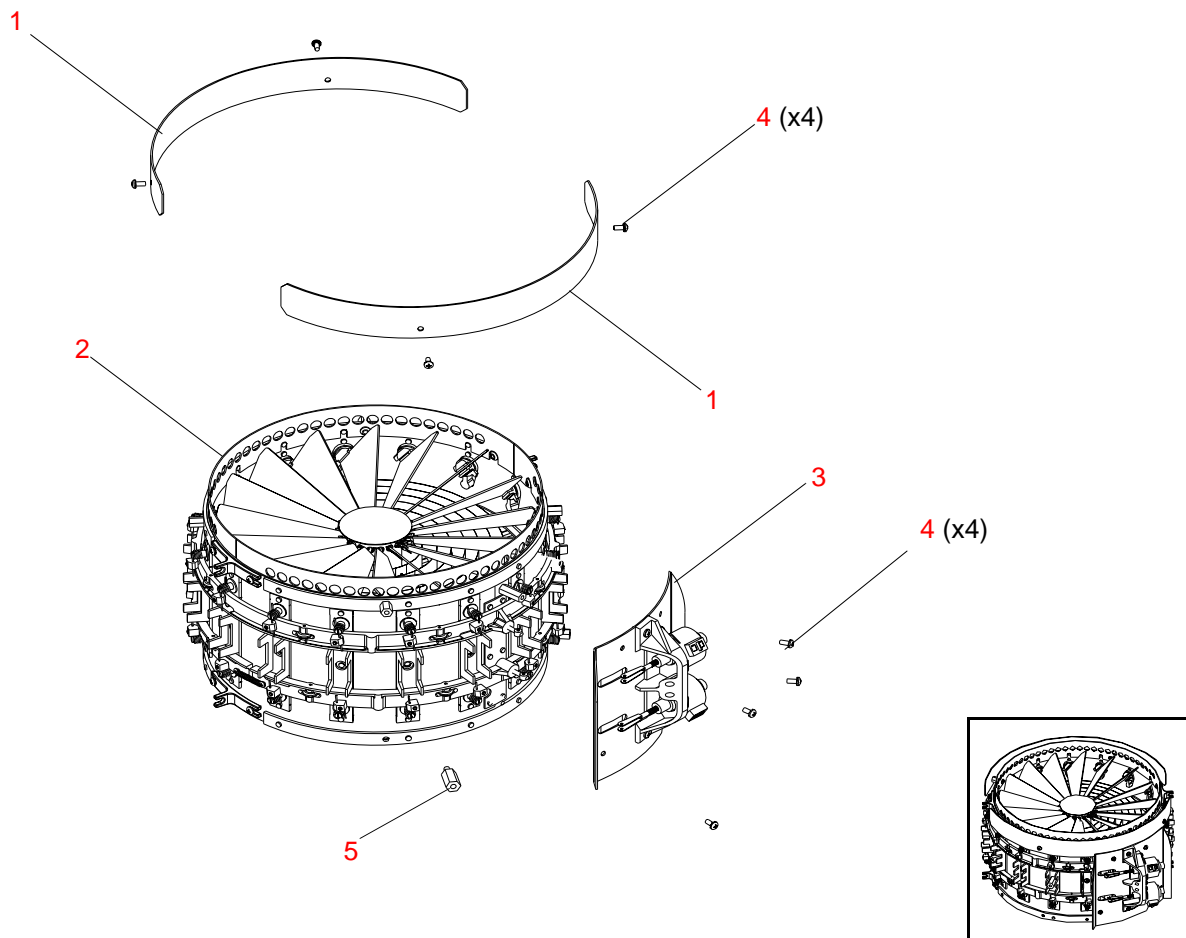


Figure 3-25: VL500 Amber/Diffuser Color Assembly

## VL500 Amber/Dimmer Color Assembly

21.9685.0172 Rev F

Refer to [Figure 3-26](#).

No.	Item	Qty.	UM.	Description
1	10.9685.0245	2	EA	LIGHT BAFFLE, TOP
2	<a href="#">21.9685.0162</a>	1	EA	ASSY, AMBER/DIMMER, DICRO*TUNE
3	<a href="#">21.9685.0281</a>	1	EA	MOTOR ASSY, AMBER/DIFFUSER
4	53.6592.0250	8	EA	SCREW, 4-40X1/4" PPB SEMS
5	55.6704.0015	1	EA	STANDOFF, 5/16" HEX, 6-32X0.593" LG

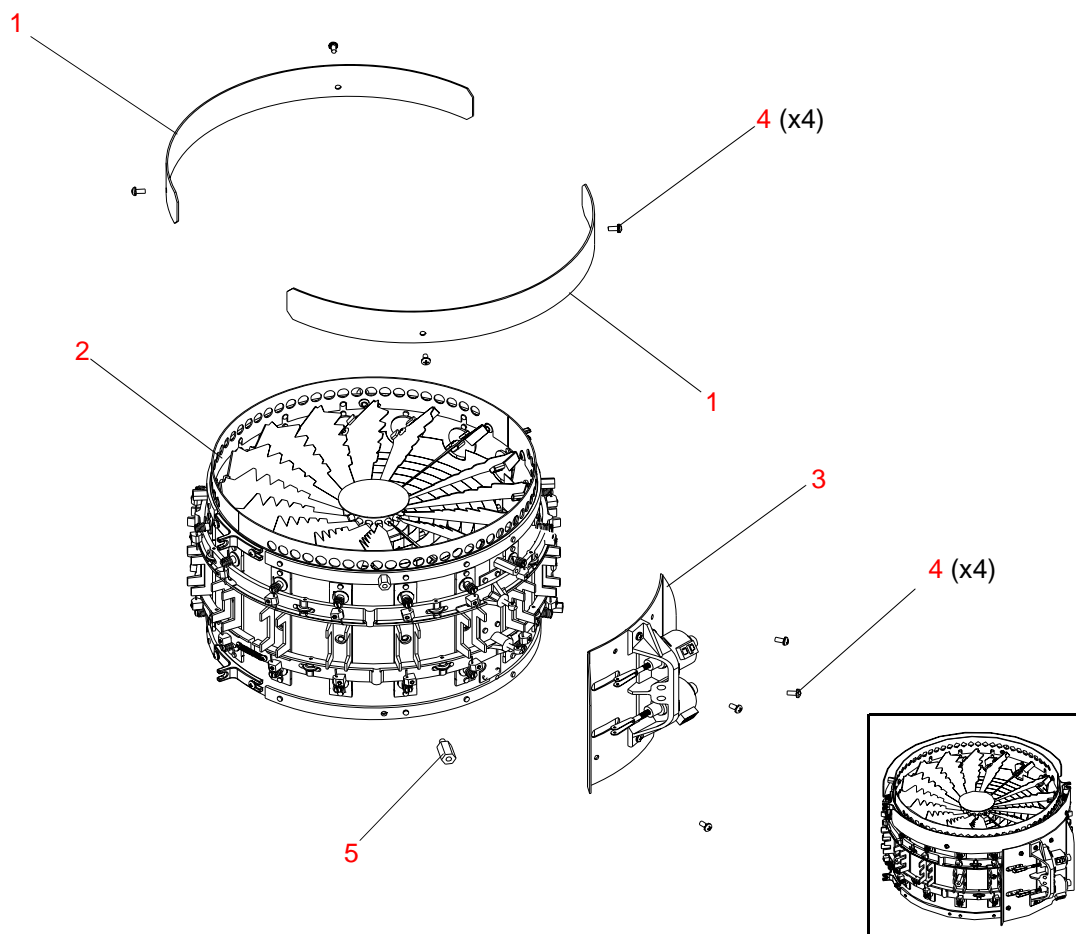


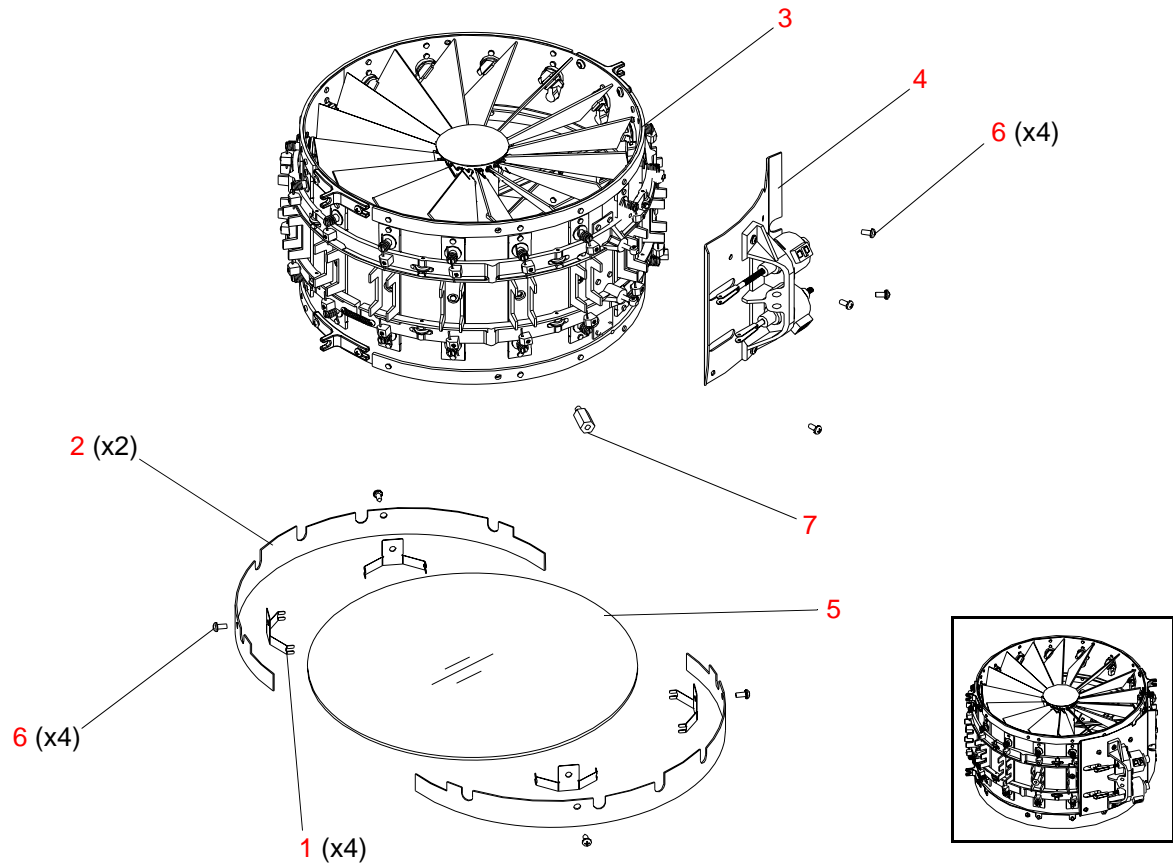
Figure 3-26: VL500 Amber/Dimmer Color Assembly

## VL500 Magenta/Blue (Arc) Color Assembly

21.9685.0173 Rev A (Standard DICRO\*TUNE Colors)

Refer to [Figure 3-27](#).

No.	Item	Qty.	UM.	Description
1	10.9685.0246	4	EA	CLIP, UV GLASS
2	10.9685.0257	2	EA	LIGHT BAFFLE, REAR BULKHEAD
3	<a href="#">21.9685.0160</a>	1	EA	ASSY, MAGENTA/BLUE, STANDARD, DICRO*TUNE
4	<a href="#">21.9685.0280</a>	1	EA	MOTOR ASSY, MAG/BLUE
5	42.9685.0130	1	EA	GLASS, UV
6	53.6592.0250	8	EA	SCREW, 4-40X1/4" PPB SEMS
7	55.6704.0015	1	EA	STANDOFF, 5/16" HEX, 6-32X0.593" LG



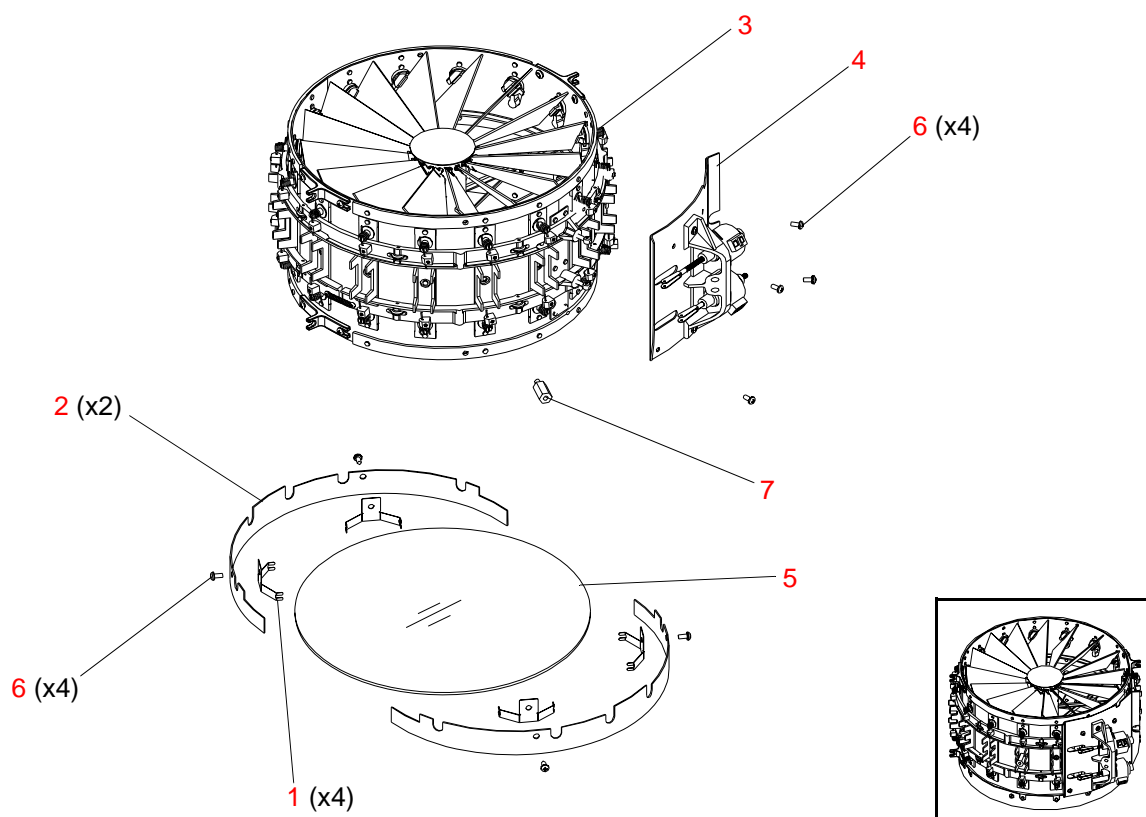
**Figure 3-27: VL500 Magenta/Blue (Arc) Color Assembly**

## VL500 Magenta/Blue (Arc Pastel) Color Assembly

21.9685.0175 Rev A (Pastel DICRO\*TUNE Colors)

Refer to [Figure 3-28](#).

No.	Item	Qty.	UM.	Description
1	10.9685.0246	4	EA	CLIP, UV GLASS
2	10.9685.0257	2	EA	LIGHT Baffle, REAR BULKHEAD
3	<a href="#">21.9685.0164</a>	1	EA	ASSY, MAGENTA/BLUE, PASTEL, DICRO*TUNE
4	<a href="#">21.9685.0280</a>	1	EA	MOTOR ASSY, MAG/BLUE
5	42.9685.0130	1	EA	GLASS, UV
6	53.6592.0250	8	EA	SCREW, 4-40X1/4" PPB SEMS
7	55.6704.0015	1	EA	STANDOFF, 5/16" HEX, 6-32X0.593" LG



**Figure 3-28: VL500 Magenta/Blue (Arc) Color Assembly**

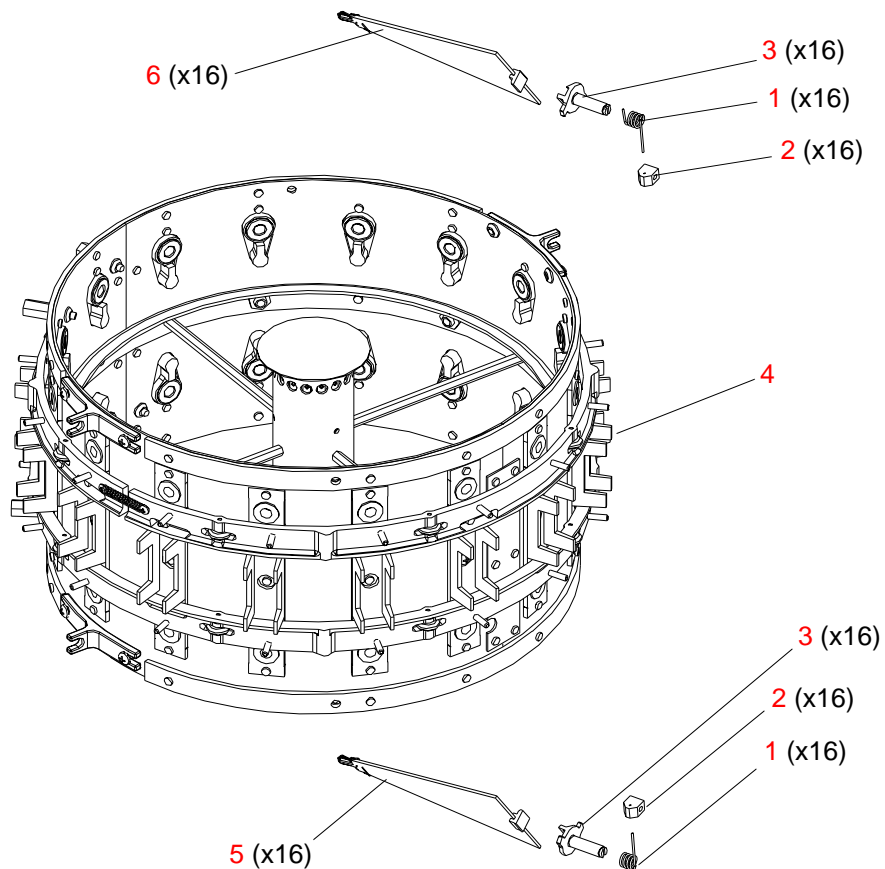


## Magenta/Blue Color Assembly

21.9685.0160 Rev E (Standard DICRO\*TUNE Colors)

Refer to [Figure 3-29](#).

No.	Item	Qty.	UM.	Description
1	10.9634.0034	32	EA	SPRING, DRIVE ARM, FILTER
2	10.9634.0035	32	EA	LINK, DRIVE ARM
3	10.9634.0166	32	EA	CARRIER, FILTER, METAL INJ MOLD
4	<a href="#">21.9685.0150</a>	1	EA	ASSY, BOTTOM BULKHEAD
5	22.9685.0122	16	EA	ASSY, FILTER, MAGENTA, DICRO*TUNE
6	22.9685.0123	16	EA	ASSY, FILTER, BLUE, DICRO*TUNE



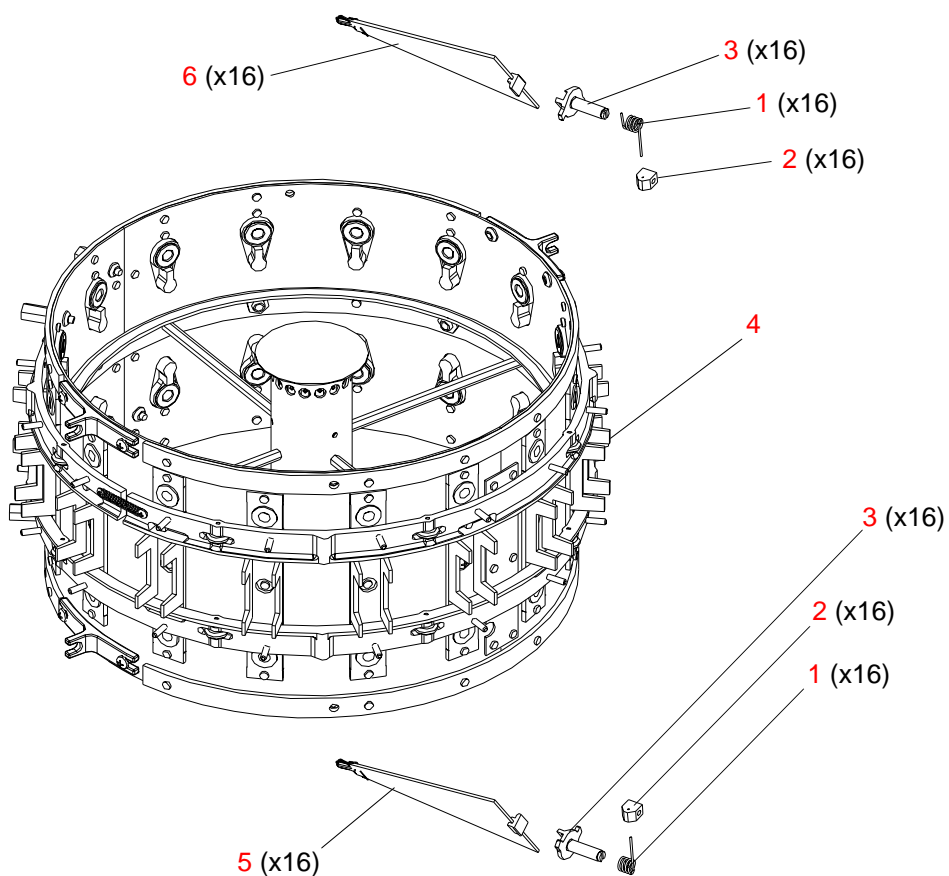
**Figure 3-29: Magenta/Blue Color Assembly**

## Magenta/Blue (Pastel) Color Assembly

21.9685.0164 Rev 0 (Pastel DICRO\*TUNE Colors)

Refer to [Figure 3-30](#).

No.	Item	Qty.	UM.	Description
1	10.9634.0034	32	EA	SPRING, DRIVE ARM, FILTER
2	10.9634.0035	32	EA	LINK, DRIVE ARM
3	10.9634.0166	32	EA	CARRIER, FILTER, METAL INJ MOLD
4	<a href="#">21.9685.0150</a>	1	EA	ASSY, BOTTOM BULKHEAD
5	22.9685.0120	16	EA	ASSY, FILTER, MAGENTA, PASTEL, DICRO*TUNE
6	22.9685.0121	16	EA	ASSY, FILTER, BLUE, PASTEL, DICRO*TUNE



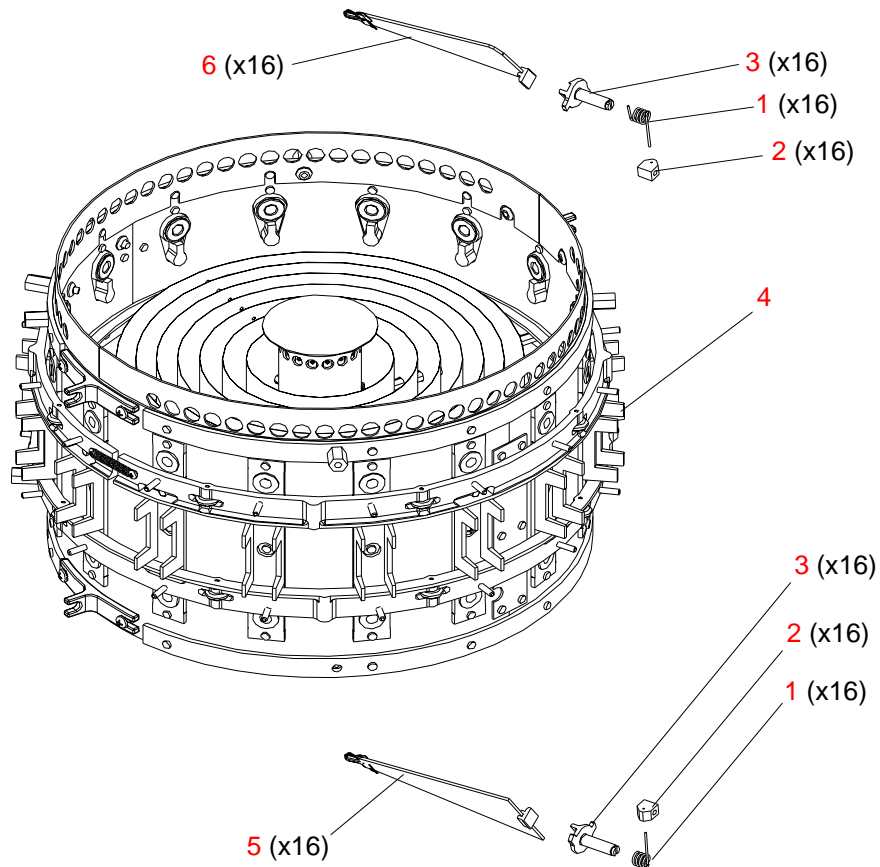
**Figure 3-30: Magenta/Blue (Pastel) Color Assembly**

## Amber/Diffuser Color Assembly

21.9685.0161 Rev F

Refer to [Figure 3-31](#).

No.	Item	Qty.	UM.	Description
1	10.9634.0034	32	EA	SPRING, DRIVE ARM, FILTER
2	10.9634.0035	32	EA	LINK, DRIVE ARM
3	10.9634.0166	32	EA	CARRIER, FILTER, METAL INJ MOLD
4	<a href="#">21.9685.0151</a>	1	EA	ASSY, BULKHEAD, TOP
5	22.9685.0124	16	EA	ASSY, FILTER, AMBER, DICRO*TUNE
6	22.9685.0126	16	EA	ASSY, DIFFUSER PANEL



**Figure 3-31: Amber/Diffuser Color Assembly**

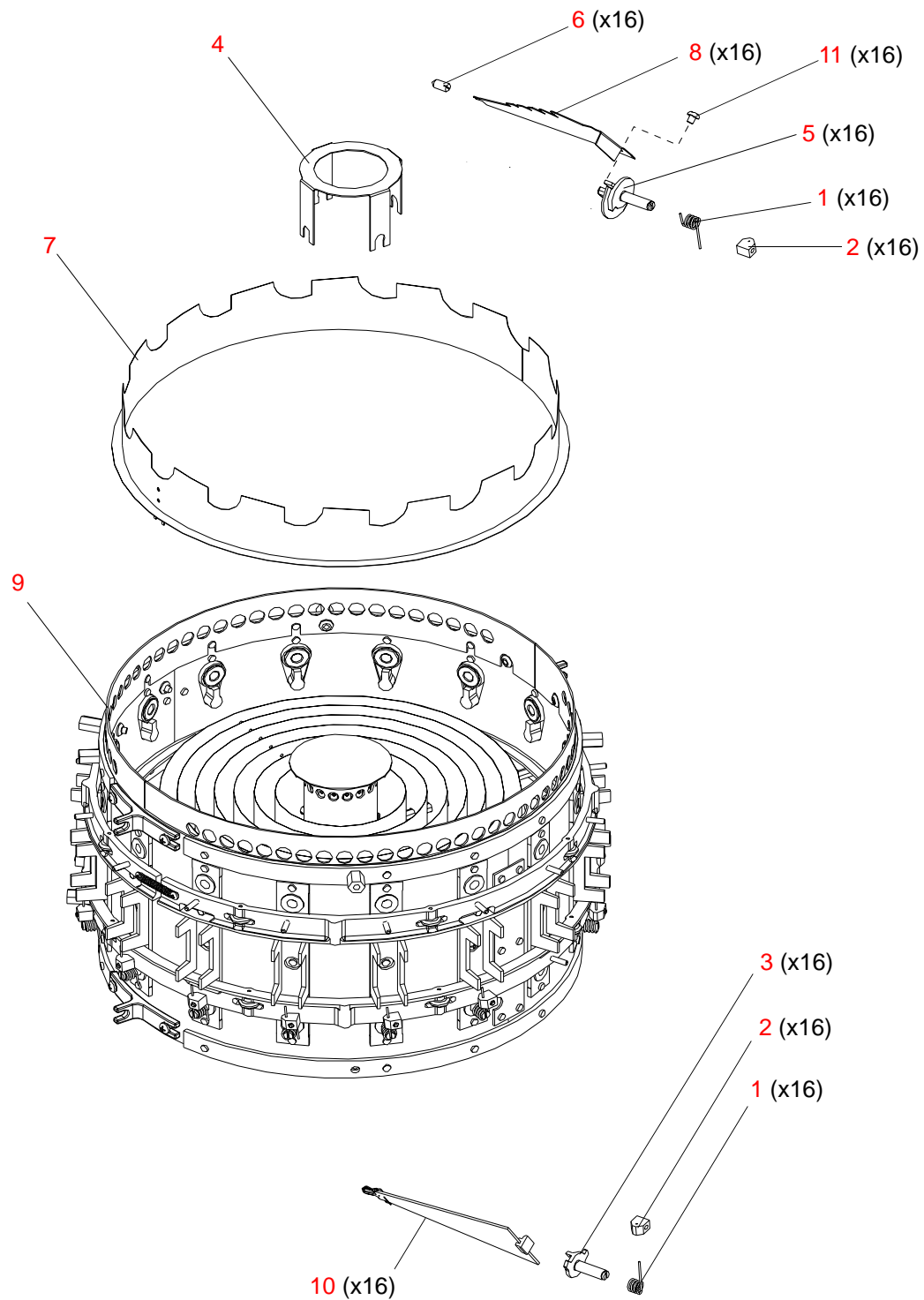
## Amber/Dimmer Color Assembly

21.9685.0162 Rev E

Refer to [Figure 3-32](#).

No.	Item	Qty.	UM.	Description
1	10.9634.0034	32	EA	SPRING, DRIVE ARM, FILTER
2	10.9634.0035	32	EA	LINK, DRIVE ARM
3	10.9634.0166	16	EA	CARRIER, FILTER, METAL INJ MOLD
4	10.9647.0121	1	EA	BAFFLE, INNER LIGHT
5	10.9661.0307	16	EA	CARRIER, DIMMER
6	10.9661.0312	16	EA	BEARING, DIMMER
7	10.9661.0313	1	EA	BAFFLE, OUTER LIGHT, DIMMER
8	10.9685.0210	16	EA	DIMMER BLADE, VL500
9	<a href="#">21.9685.0151</a>	1	EA	ASSY, BULKHEAD, TOP
10	22.9685.0124	16	EA	ASSY, FILTER, AMBER, DICRO*TUNE
11	53.6556.0004	16	EA	SCREW, 4-40X1/8" PPB

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Amber/Dimmer Color Assembly (continued)**Figure 3-32: Amber/Dimmer Color Assembly**

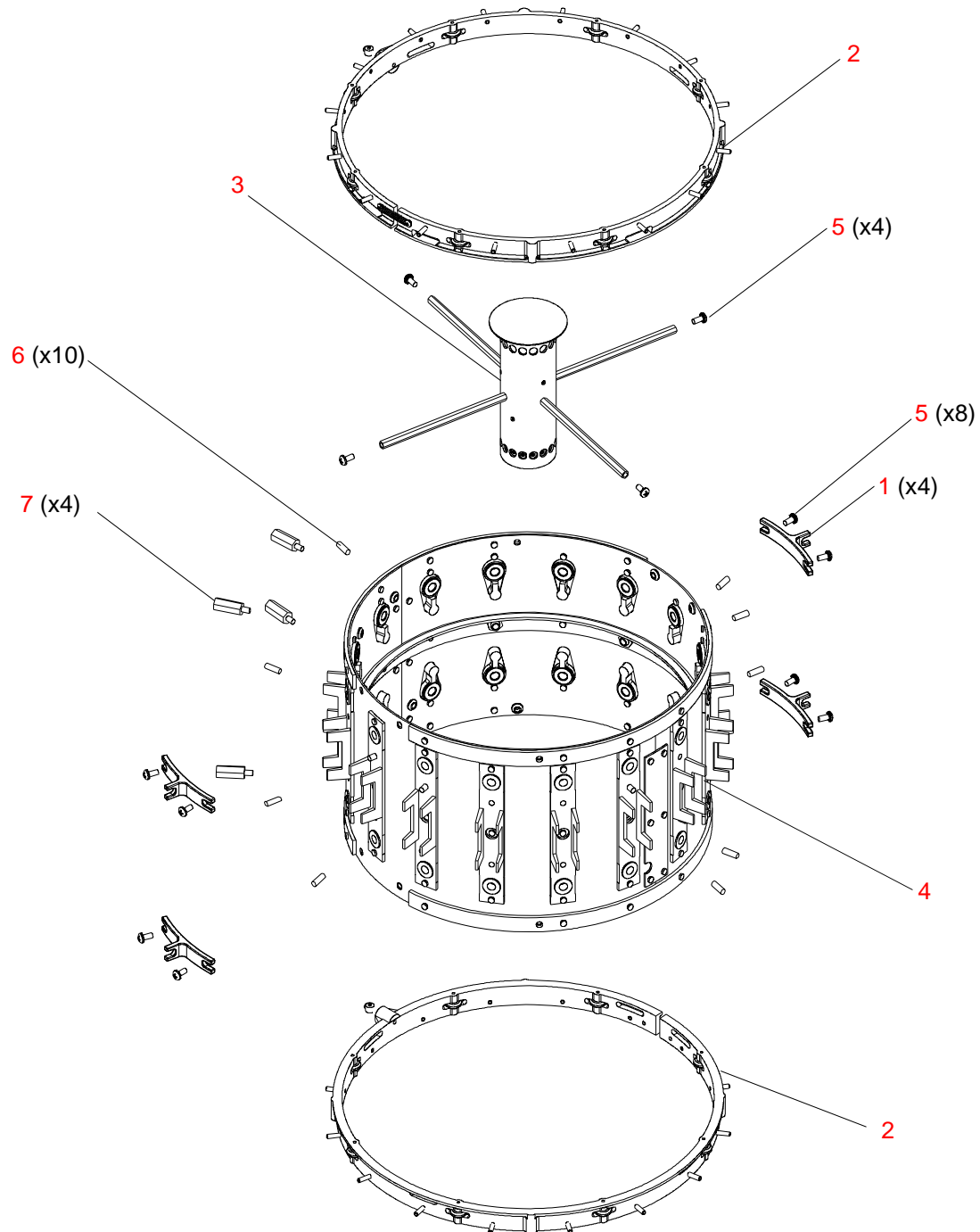
## Bottom Bulkhead Assembly

21.9685.0150 Rev C

Refer to [Figure 3-33](#).

No.	Item	Qty.	UM.	Description
1	10.9661.0315	4	EA	SUPPORT, BULKHEAD
2	<a href="#">21.9685.0251</a>	2	EA	ASSY, DRIVE RING
3	22.9634.0119	1	EA	ASSY, CENTER HUB
4	22.9685.0201	1	EA	ASSY, GENERIC BULKHEAD
5	53.6682.0002	12	EA	SCREW, 4-40X1/4" PPZ SEMS
6	55.6612.0008	10	EA	PIN, 1/8" OD X 3/8" LG AL DRIV-LOX
7	55.6669.0009	4	EA	STANDOFF, 1/4" HEX, #40-40X0.625" MF

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Bottom Bulkhead Assembly (continued)

**Figure 3-33: Bottom Bulkhead Assembly**

## Top Bulkhead Assembly

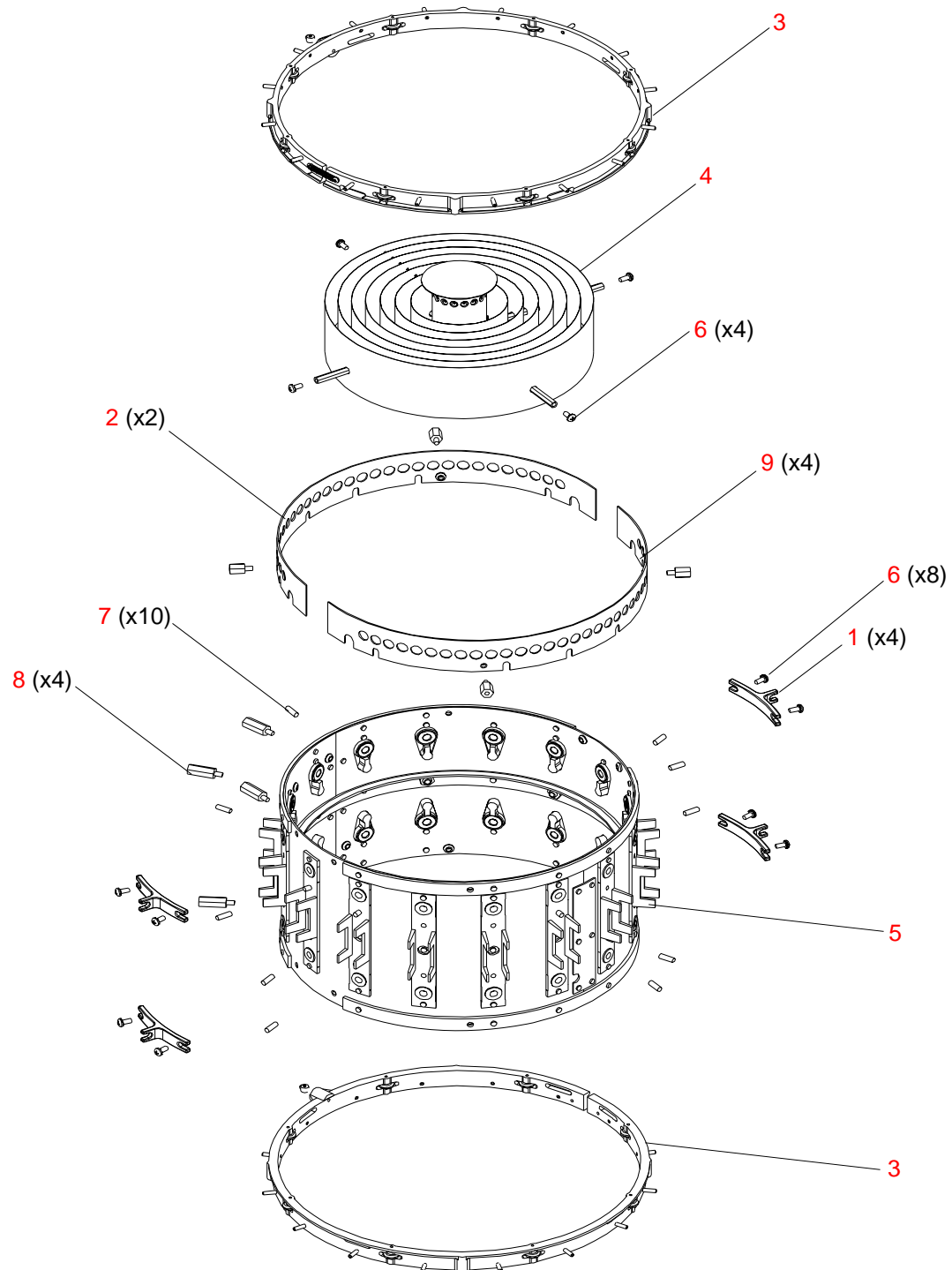
21.9685.0151 Rev C

Refer to [Figure 3-34](#).

No.	Item	Qty.	UM.	Description
1	10.9661.0315	4	EA	SUPPORT, BULKHEAD
2	10.9685.0219	2	EA	AUX RING, COLOR BULKHEAD
3	<a href="#">21.9685.0251</a>	2	EA	ASSY, DRIVE RING
4	22.9634.0120	1	EA	ASSY, LIGHT BAFFLE
5	22.9685.0201	1	EA	ASSY, GENERIC BULKHEAD
6	53.6682.0002	12	EA	SCREW, 4-40X1/4" PPZ SEMS
7	55.6612.0008	10	EA	PIN, 1/8" OD X 3/8" LG AL DRIV-LOX
8	55.6669.0009	4	EA	STANDOFF, 1/4" HEX, #40-40X0.625" MF
9	55.6858.0002	4	EA	STANDOFF, 1/4" HEX, #40-40X0.343" MF



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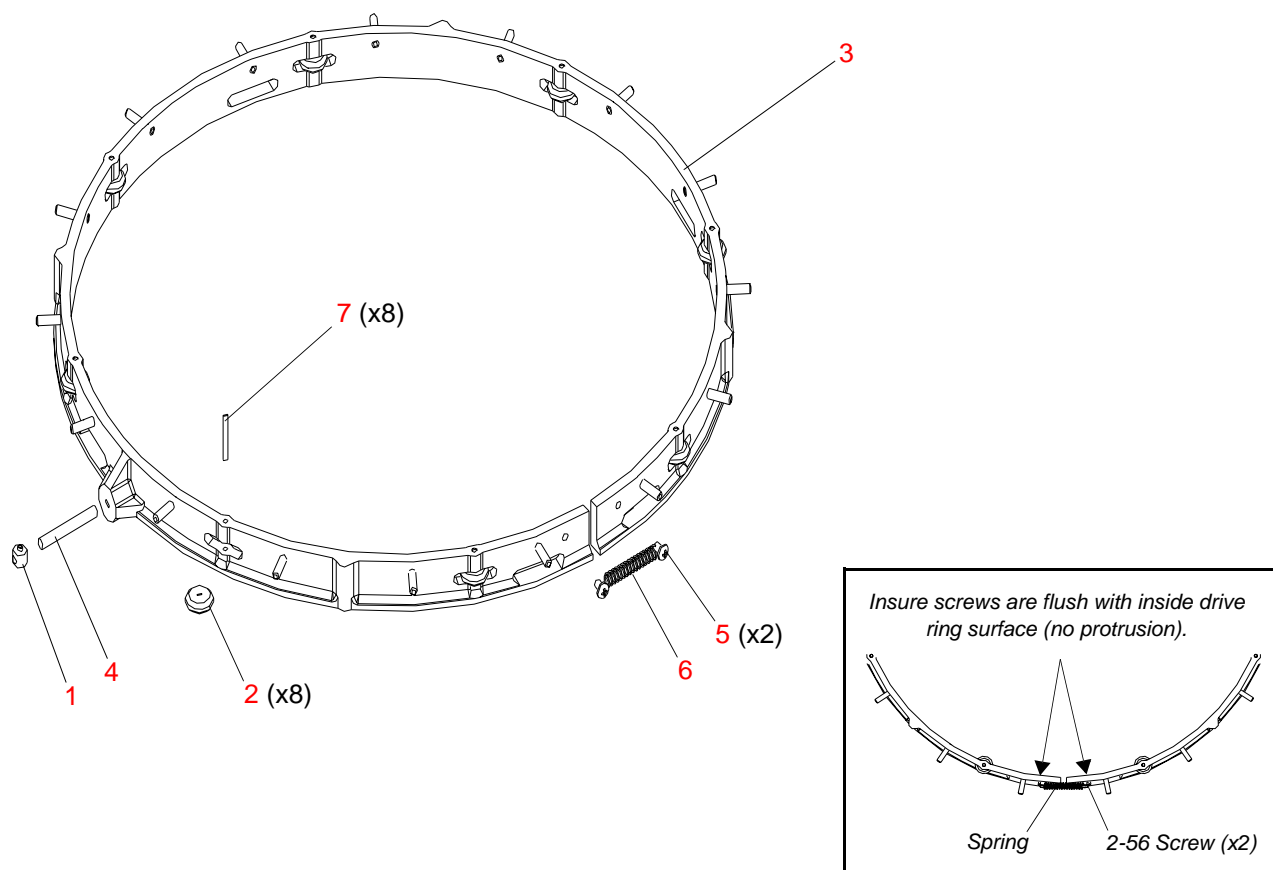
Top Bulkhead Assembly (continued)**Figure 3-34: Top Bulkhead Assembly**

## Drive Ring Assembly

21.9685.0251 Rev D

Refer to [Figure 3-36](#).

No.	Item	Qty.	UM.	Description
1	10.9634.0105	1	EA	LINK, SWIVEL
2	10.9685.7240	8	EA	ROLLER, DRIVE RING
3	22.9685.0238	1	EA	RING, DRIVE, WITH PINS
4	53.5554.0875	1	EA	SCREW, 4-40X7/8" SET SS FLAT POINT
5	53.6659.0013	2	EA	SCREW, 2-56X1/8" PPB
6	55.6603.0001	1	EA	SPRING, SS 4.6#/IN EXTENSION
7	55.6612.0004	8	EA	PIN, 1/16" OD X 1/2" LG TYPE C 303 S/S



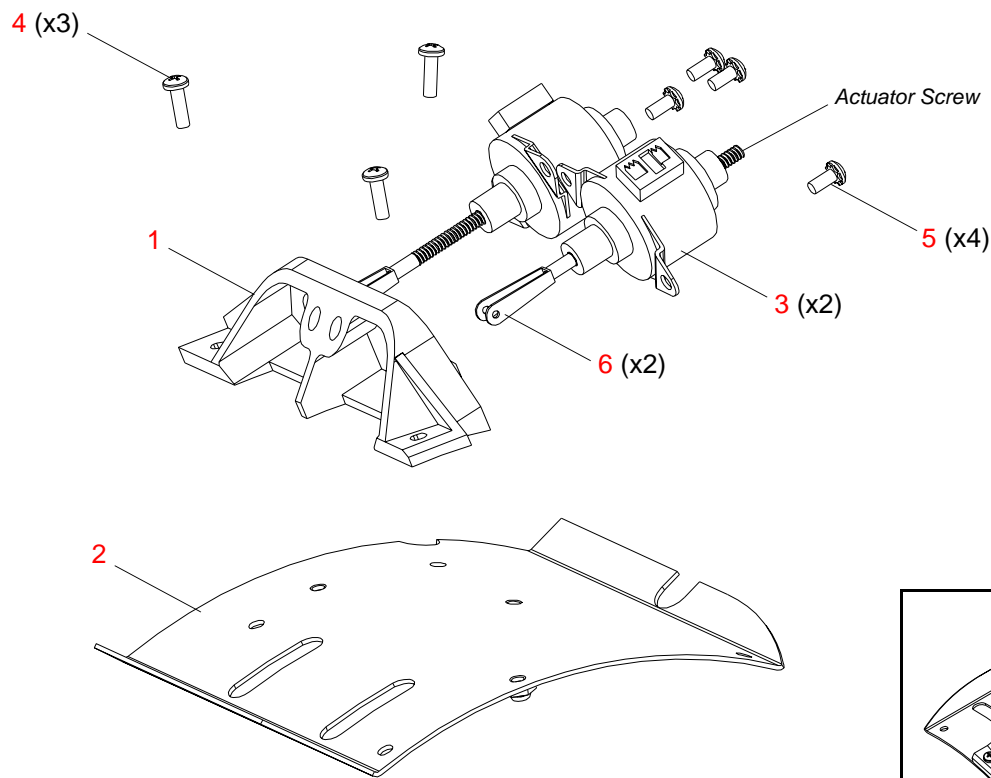
**Figure 3-35: Drive Ring Assembly**

## Magenta/Blue Color Motor Assembly

21.9685.0280 Rev A

Refer to [Figure 3-36](#).

No.	Item	Qty.	UM.	Description
1	10.9634.0061	1	EA	ACTUATOR MOUNT, VL500
2	10.9634.0075	1	EA	HEAT SHIELD, MAGENTA/BLEUE
3	44.9685.0230	2	EA	MOTOR, LINEAR, 0.002"/STEP
4	53.6520.0001	3	EA	SCREW, 4-40X3/8" PPZ
5	53.6682.0002	4	EA	SCREW, 4-40X1/4" PPZ SEMS
6	54.1217.0004	2	EA	LINK, VL500 ACTUATOR-DRIVE RING



Note: Versilube Silicon Grease (G321) is used to lubricate the actuator screw.

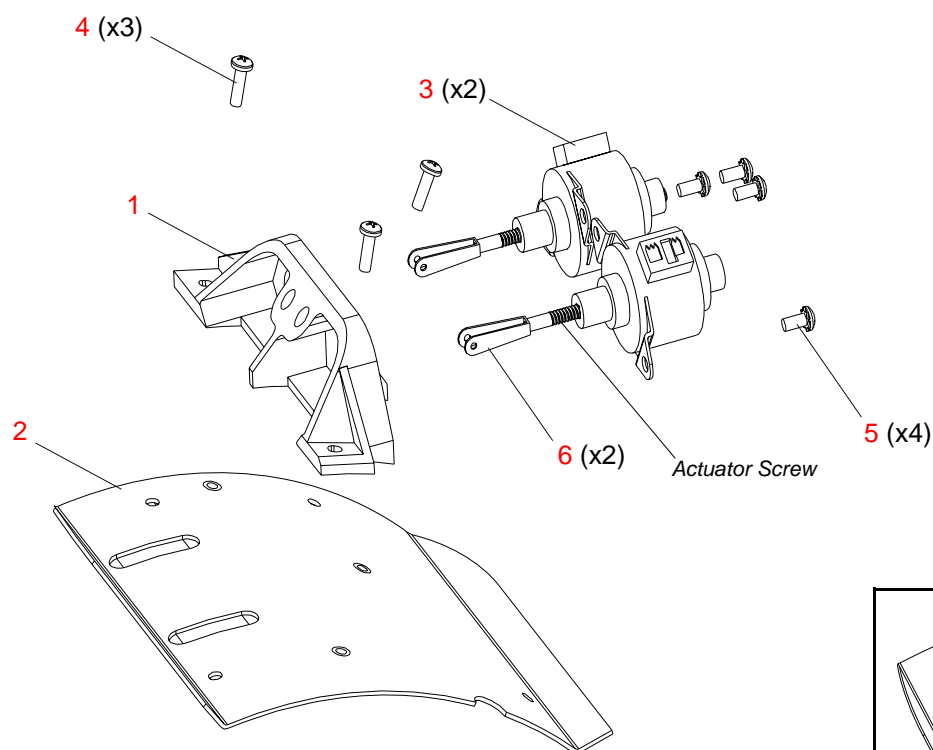
**Figure 3-36: Magenta/Blue Color Motor Assembly**

## Amber/Diffuser Color Motor Assembly

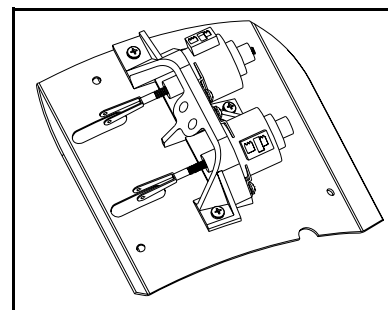
21.9685.0281 Rev A

Refer to [Figure 3-36](#).

No.	Item	Qty.	UM.	Description
1	10.9634.0061	1	EA	ACTUATOR MOUNT, VL500
2	10.9634.0074	1	EA	HEAT SHIELD, AMBER/DIFFUSER
3	44.9685.0230	2	EA	MOTOR, LINEAR, 0.002"/STEP
4	53.6520.0001	3	EA	SCREW, 4-40X3/8" PPZ
5	53.6682.0002	4	EA	SCREW, 4-40X1/4" PPZ SEMS
6	54.1217.0004	2	EA	LINK, VL500 ACTUATOR-DRIVE RING



Note: Versilube Silicon Grease (G321) is used to lubricate the actuator screw.



**Figure 3-37: Amber/Diffuser Color Motor Assembly**

# Yoke Assembly

## VL500 Yoke Assembly

21.9685.0520 (VL500) Rev U

21.9685.0521 (VL500D) Rev U

21.9685.0522 (VL500A) Rev U

Refer to [Figure 3-38](#) and [Figure 3-39](#).

No.	Item	Qty.	UM.	Description
1	10.9685.0534	1	EA	COVER, PAN TUBE
2	10.9685.0537	1	EA	PLATE, MOUNTING, LAMP POWER PIGTAIL ( <b>VL500 ONLY</b> )
3	10.9685.0538	1	EA	BEZEL, LAMP POWER PIGTAIL ( <b>VL500 ONLY</b> )
4	10.9685.1560	1	EA	YOKE LEG, TILT SIDE
5	10.9685.1561	1	EA	YOKE LEG, DIMMER SIDE
6	10.9685.0562	1	EA	PLATE, TILT MOTOR, SLIDE
7	10.9685.0596	1	EA	MOUNT, FAN, LVS
8	<a href="#">21.9685.0515</a>	1	EA	ASSY, YOKE CROSSMEMBER
9	<a href="#">21.9685.0540</a>	2	EA	ASSY, PAN/TILT MOTOR
10	<a href="#">23.9685.0782</a>	1	EA	ASSY, FAN MCB
11	<a href="#">24.9663.3895</a>	1	EA	PCB ASSY, DMX INPUT
12	24.9685.3740	1	EA	TEMPERATURE BOARD, LVS
13	<a href="#">25.9663.2030</a>	1	EA	CABLE ASSY, INCANDESCENT POWER ( <b>VL500 ONLY</b> )
14	<a href="#">25.9685.0756</a>	1	EA	CABLE ASSY, AC INPUT
15	<a href="#">25.9685.0757</a>	1	EA	CABLE ASSY, ARC BALLAST INPUT ( <b>VL500A ONLY</b> )
16	<a href="#">25.9685.0770</a>	1	EA	DISPLAY CABLE RECEPTACLE, BLACK
-	<a href="#">25.9685.0790</a>	1	EA	CABLE ASSY, MAIN HARNESS, INCANDESCENT ( <b>VL500 AND VL500D ONLY</b> ) ( <b>NOT SHOWN</b> )
-	<a href="#">25.9685.0791</a>	1	EA	CABLE ASSY, MAIN HARNESS, ARC ( <b>VL500A ONLY</b> ) ( <b>NOT SHOWN</b> )
-	<a href="#">28.9685.0999</a>	1	EA	KIT, EXTRA US HARDWARE ( <b>NOT SHOWN</b> )
17	51-0541	4	EA	SCREW, #4X3/8" H/L PN BLK ZN
18	52.8295.0002	2	EA	TERMINAL BLOCK, 300V 12 AWG 20A 2-POS
19	53.2001.0003	1	EA	NUT, 10-32 NYLOCK
20	53.2200.0004	2	EA	NUT, 4-40 KEPS SS
21	53.2200.0006	4	EA	NUT, 6-32 KEPS SS ( <b>VL500D AND VL500A ONLY</b> )
22	53.2202.0004	4	EA	NUT, 4-40 HEX SS NYLON INSERT

<b>No.</b>	<b>Item</b>	<b>Qty.</b>	<b>UM.</b>	<b>Description</b>
23	53.6519.0001	3	EA	SCREW, 4-40X5/8" PPZ
24	53.6521.0001	4	EA	SCREW, 8-32X1/2" PPB
25	53.6526.0002	2	EA	SCREW, 6-32X5/8" PPZ TYPE F
26	53.6546.0003	8	EA	SCREW, 8-32X7/16" PPZ
27	53.6552.0002	18	EA	SCREW, 8-32X1/2" PFB
28	53.6559.0002	2	EA	SCREW, 4-40X1/4" PFB
29	53.6606.0001	2	EA	SCREW, 4-40X1/2" PFB
30	53.6608.0750	4	EA	SCREW, 6-32X3/8" PFB
31	53.6624.0001	1	EA	SCREW, 10-32X1/2" PFB
32	53.6596.0001	1	EA	SCREW, 4-40X5/16" PPZ
33	54.2065.0001	1	EA	BELT, TIMING, S2M 252 GROOVE
34	55.2166.0250	1	EA	STANDOFF, 1/4" HEX 6-32, 0.250" LG MF SS
35	55.2288.0001	3	EA	STANDOFF, 1/4" HEX 6-32 X 13/16" LG
36	55.3301.0008	8	EA	WASHER, #8 FLAT SS
37	55.3301.0010	1	EA	WASHER, #10 FLAT
38	55.6543.0001	2.4	IN	GROMMET STRIP, SERRATED, 0.062
39	55.6568.0056	2	EA	SPRING, CPRSN, 0.600 OD, 0.080 WIR
40	55.6662.0010	1	EA	HOLE PLUG, 1.093" DIA, BLK NYLON (VL500D ONLY)
41	55.6669.0005	6	EA	STANDOFF, 6-32 X 0.500" LG 1/4" HEX
42	55.6669.0012	1	EA	STANDOFF, 6-32 X 1.00" LG 1/4" HEX MF CSTL ZINC

## VL500 Yoke Assembly (continued)

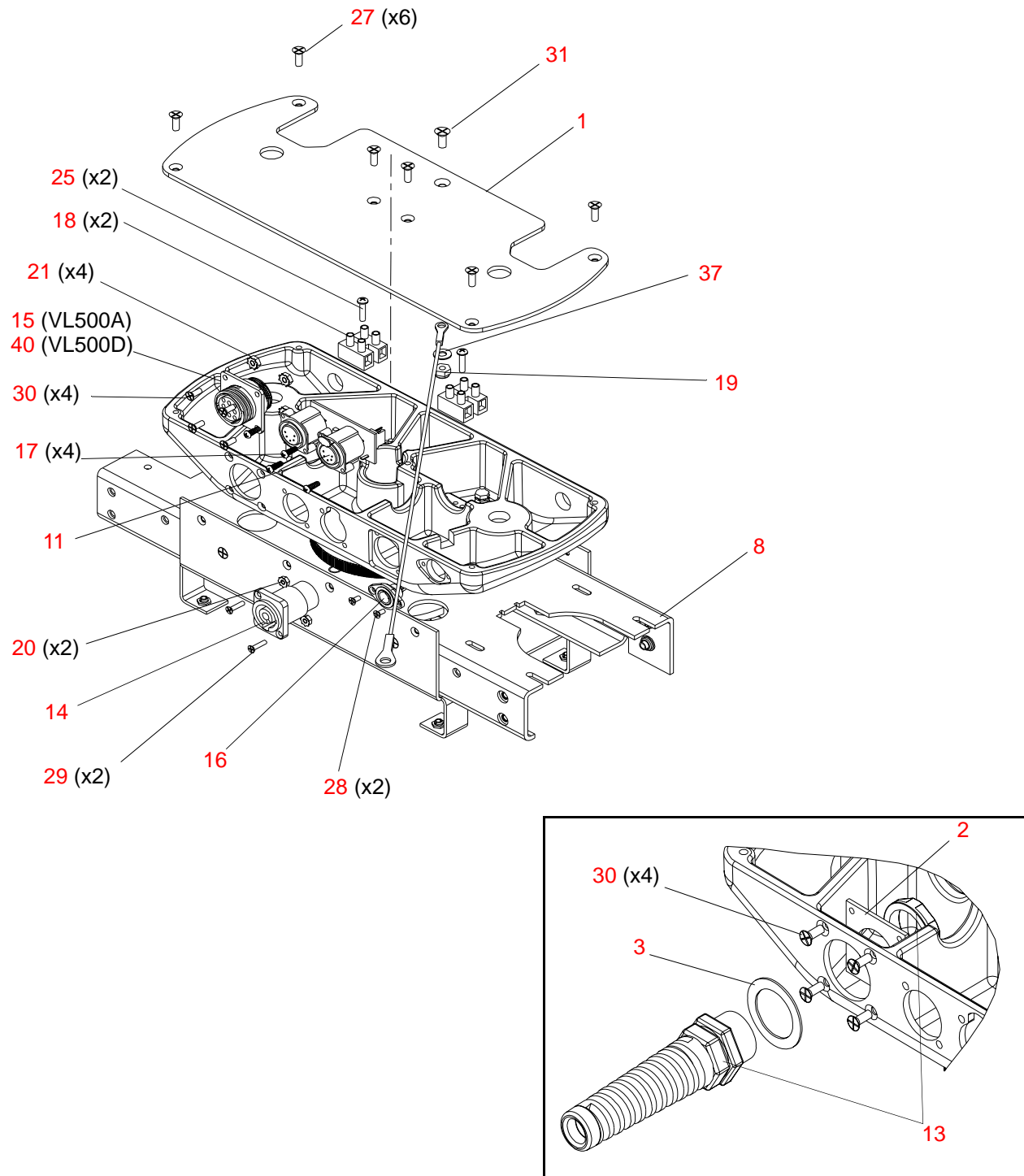


Figure 3-38: VL500 Yoke Assembly (VL500/VL500D/VL500A)

## VL500 Yoke Assembly (continued)

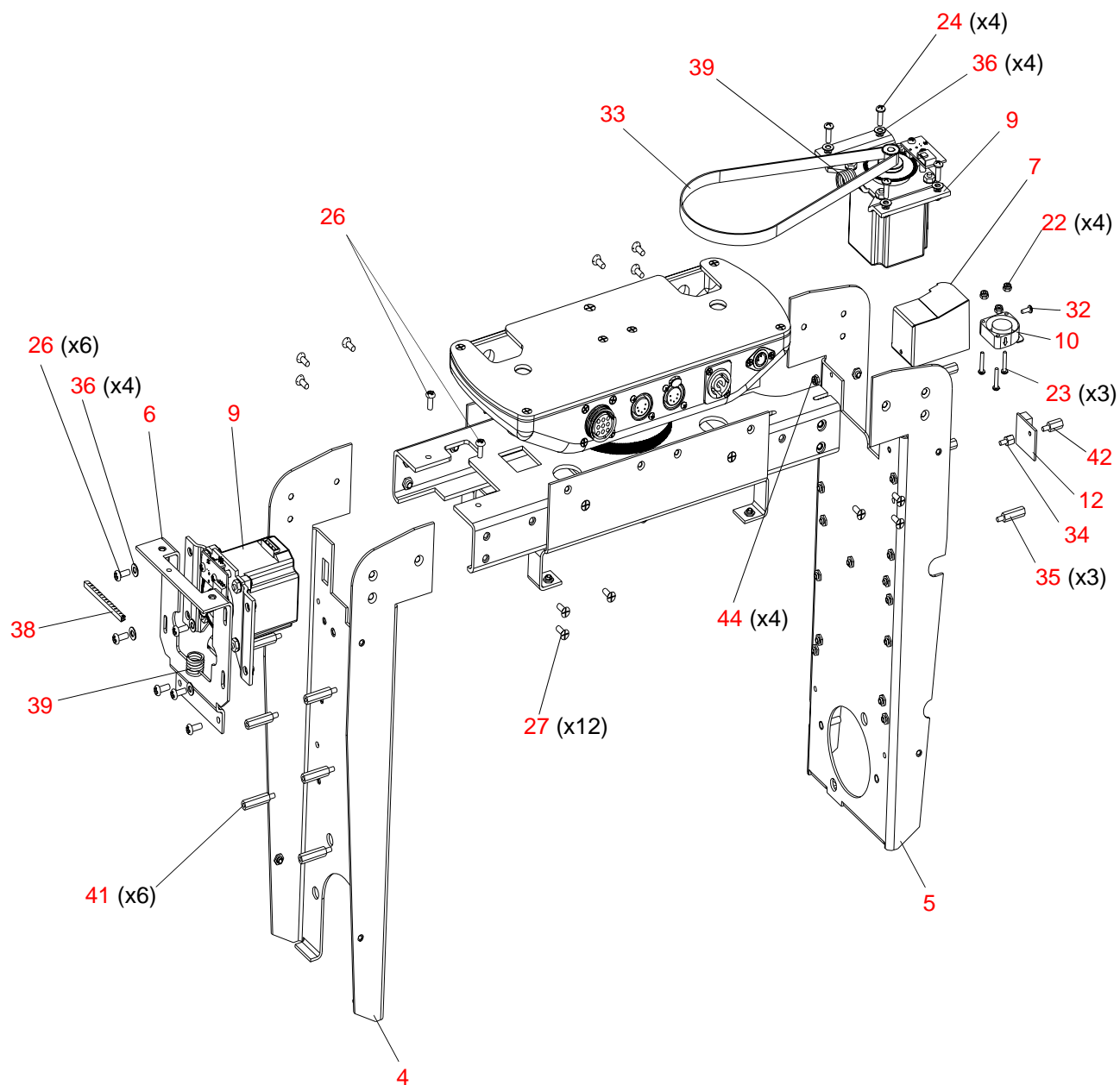


Figure 3-39: VL500 Yoke Assembly (VL500/VL500D/VL500A)



## VL500 80V Yoke Assembly

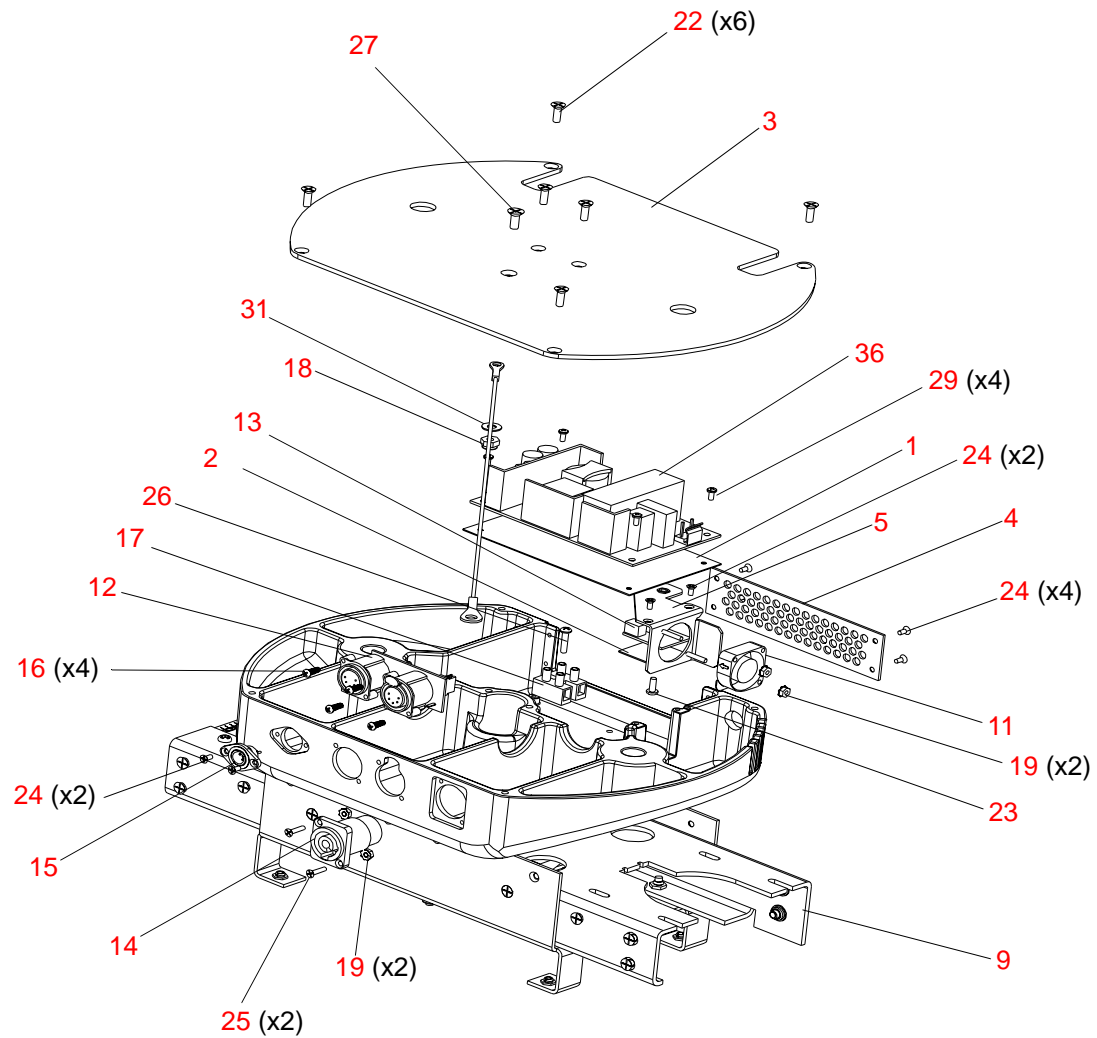
21.9685.0523 (VL500 80V) Rev Q

Refer to [Figure 3-40](#), [Figure 3-41](#).

No.	Item	Qty.	UM.	Description
1	10.9685.0542	1	EA	SHIELD, WIRE
2	10.9685.0543	1	EA	SHIELD, SENSOR BOARD
3	10.9685.1554	1	EA	COVER, PAN TUBE, 80V
4	10.9685.0557	1	EA	COVER, VENT, LVS
5	10.9685.0558	1	EA	FAN MOUNT, LVS
6	10.9685.1560	1	EA	YOKE LEG, TILT SIDE
7	10.9685.1561	1	EA	YOKE LEG, DIMMER SIDE
8	10.9685.0562	1	EA	PLATE, TILT MOTOR, SLIDE
9	<a href="#">21.9685.0516</a>	1	EA	ASSY, YOKE CROSSMEMBER, 80V
10	<a href="#">21.9685.0540</a>	2	EA	ASSY, PAN/TILT MOTOR
11	<a href="#">23.9685.0782</a>	1	EA	ASSY, FAN MCB
12	<a href="#">24.9663.3895</a>	1	EA	PCB ASSY, DMX INPUT
13	24.9685.3740	1	EA	TEMPERATURE BOARD, LVS
-	<a href="#">25.9685.0742</a>	1	EA	80V LVS AC, VL500 ( <b>NOT SHOWN</b> )
-	<a href="#">25.9685.0746</a>	1	EA	80V SURGE PROTECTOR, VL500 ( <b>NOT SHOWN</b> )
14	<a href="#">25.9685.0756</a>	1	EA	CABLE ASSY, AC INPUT
15	<a href="#">25.9685.0770</a>	1	EA	DISPLAY CABLE RECEPTACLE, BLACK
-	<a href="#">25.9685.2792</a>	1	EA	CABLE ASSY, MAIN HARNESS, 80V, VL500 ( <b>NOT SHOWN</b> )
-	<a href="#">28.9685.0999</a>	1	EA	KIT, EXTRA US HARDWARE ( <b>NOT SHOWN</b> )
16	51-0541	4	EA	SCREW, #4X3/8" H/L PN BLK ZN
17	52.8295.0002	1	EA	TERMINAL BLOCK, 300V 12 AWG 20A 2-POS
18	53.2001.0003	1	EA	NUT, 10-32 NYLOCK
19	53.2200.0004	4	EA	NUT, 4-40 KEPS SS
20	53.6521.0001	4	EA	SCREW, 8-32X1/2" PPB
21	53.6546.0003	8	EA	SCREW, 8-32X7/16" PPZ
22	53.6552.0002	18	EA	SCREW, 8-32X1/2" PFB
23	53.6558.0001	1	EA	SCREW, 6-32X3/8" PPZ
24	53.6559.0002	8	EA	SCREW, 4-40X1/4" PFB
25	53.6606.0001	2	EA	SCREW, 4-40X1/2" PFB
26	53.6616.0001	1	EA	SCREW, 6-32X3/4" PPZ TYPE F
27	53.6624.0001	1	EA	SCREW, 10-32X1/2" PFB

<b>No.</b>	<b>Item</b>	<b>Qty.</b>	<b>UM.</b>	<b>Description</b>
28	54.2065.0001	1	EA	BELT, TIMING, S2M 252 GROOVE
29	55.2203.0001	4	EA	SCREW, 4-40X1/4" PPZ
30	55.3301.0008	8	EA	WASHER, #8 FLAT SS
31	55.3301.0010	1	EA	WASHER, #10 FLAT
32	55.6543.0001	2.4	IN	GROMMET STRIP, SERRATED, 0.062
33	55.6568.0056	1	EA	SPRING, CPRSN, 0.600 OD, 0.080 WIRE
34	55.6568.0058	1	EA	SPRING, CPRSN, 0.600 OD, 0.085 WIRE, .625 LG
35	55.6669.0005	6	EA	STANDOFF, 6-32 X 0.500" LG 1/4" HEX
36	69.3178.0121	1	EA	POWER SUPPLY, 120V +24V 3X5

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VL500 80V Yoke Assembly (continued)**Figure 3-40: VL500 80V Yoke Assembly**

## VL500 Yoke Assembly (continued)

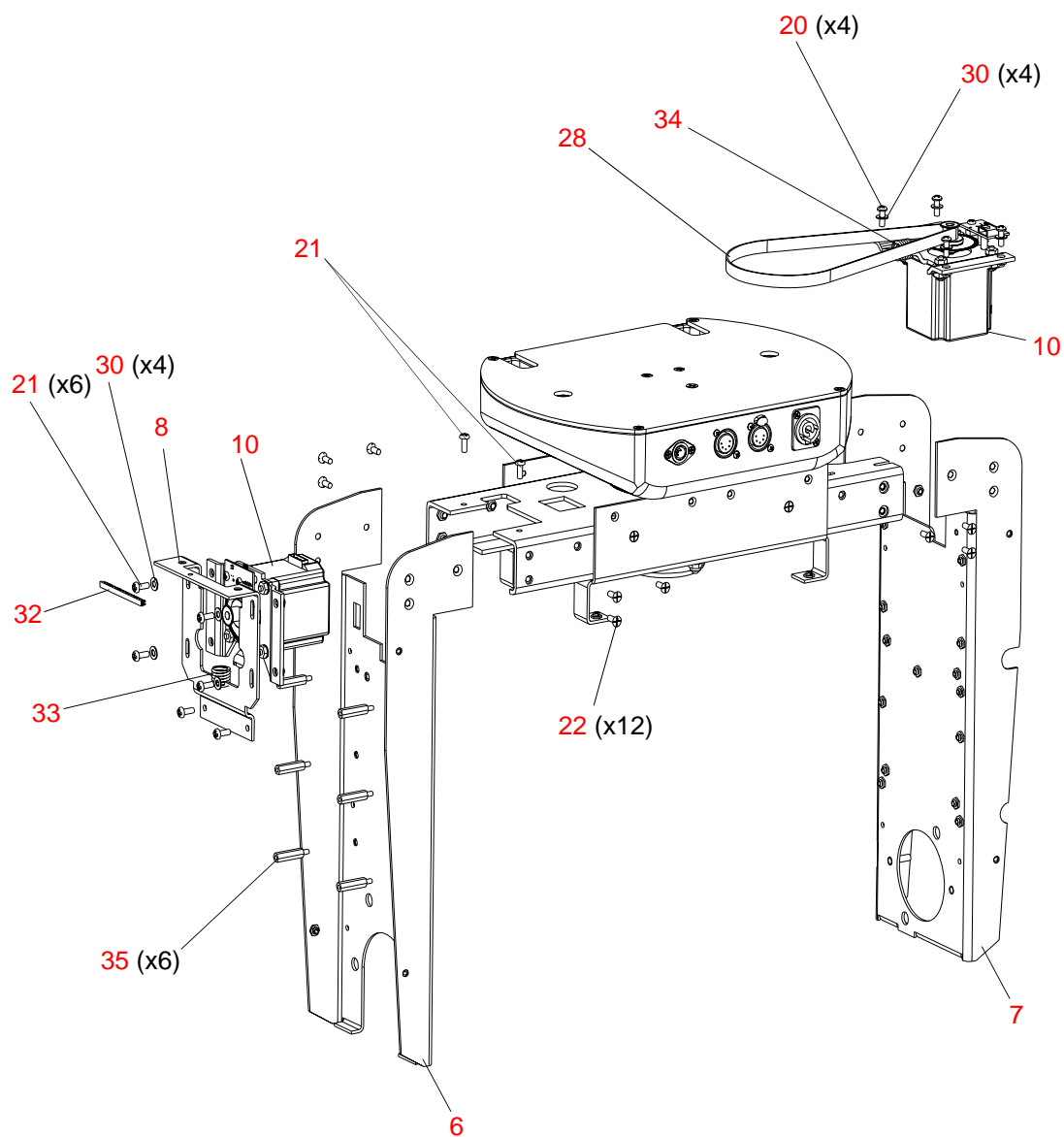


Figure 3-41: VL500 80V Yoke Assembly

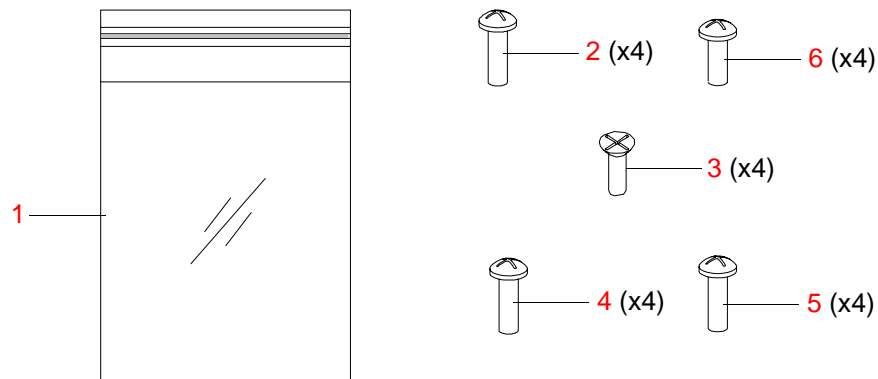
## VL500 Extra Hardware Kit

28.9685.0999 Rev 0

**Note:** This kit contains additional US-standard hardware (that may be difficult to find outside North America). It is packaged into the foot of the fixture (underneath the pan tube cover).

Refer to [Figure 3-43](#).

No.	Item	Qty.	UM.	Description
1	07.5044.0002	1	EA	BAG, 4-MIL X 2" X 3", ZIP PRESS POLYETHYLENE
2	53.6608.0001	4	EA	SCREW, 6-32X3/8" PFB
3	53.6523.0013	4	EA	SCREW, 6-32X3/8" PTB
4	53.6558.0001	4	EA	SCREW, 6-32X3/8" PPZ
5	53.6558.0009	4	EA	SCREW, 6-32X3/8" PPZ SEMS
6	53.6558.0010	4	EA	SCREW, 6-32X1/4" PPZ SEMS



**Figure 3-42: VL500 US Extra Hardware Kit**

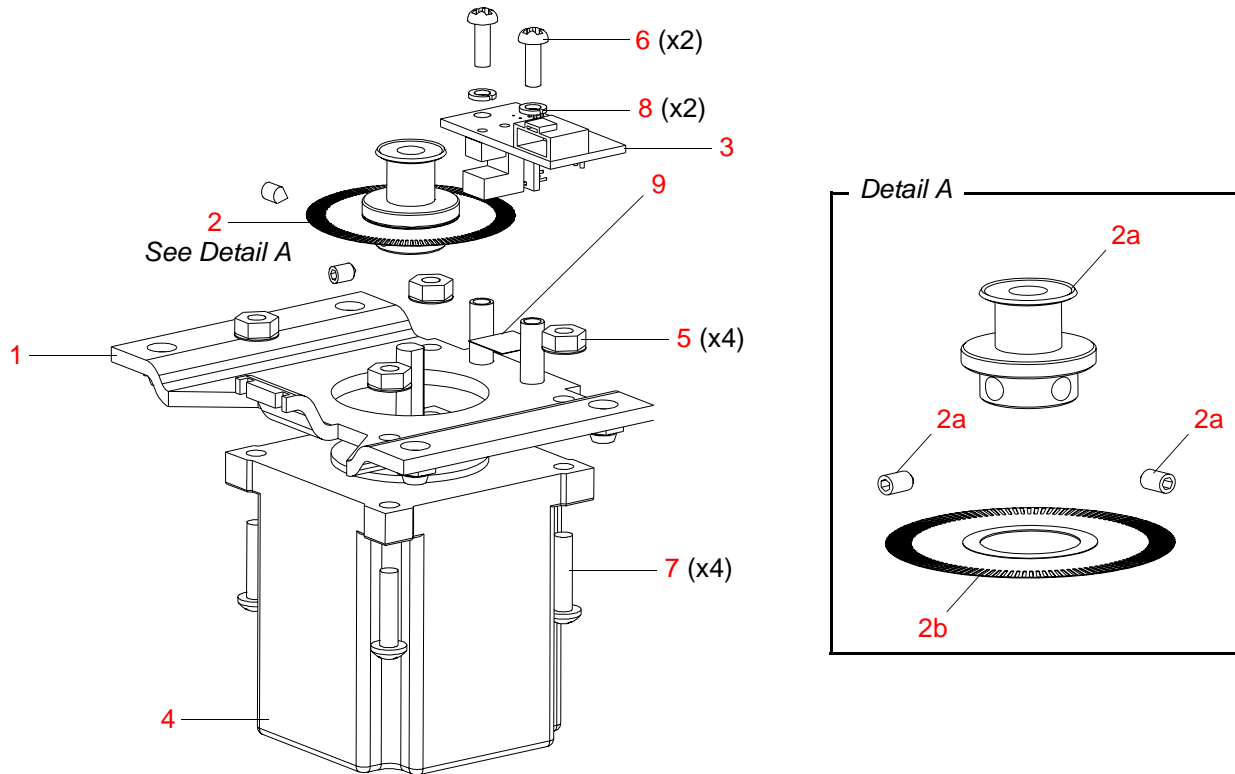
## VL500 Pan/Tilt Motor Assembly

21.9685.0540 Rev C

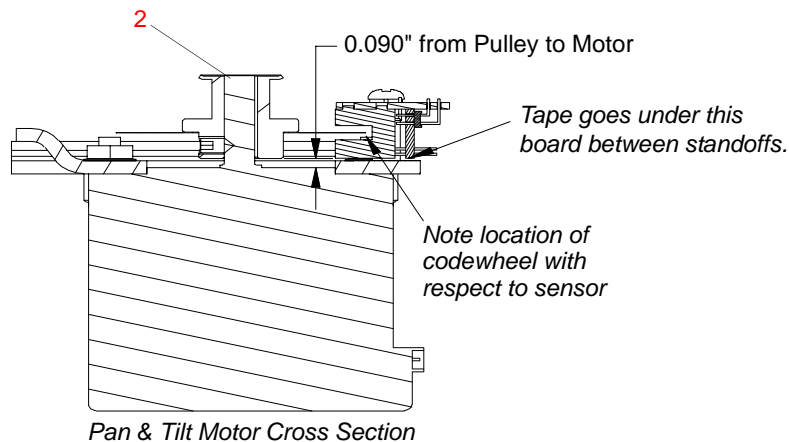
Refer to [Figure 3-43](#).

No.	Item	Qty.	UM.	Description
1	10.9685.0541	1	EA	PLATE, TENSION ADJUSTMENT, PAN/TILT
2	21.9685.0545	1	EA	ASSY, DRIVE PULLEY, VL500
2a	10.9685.0524	1	EA	PULLEY, DRIVE - PAN/TILT, 2MM GT 18 TOOTH
2b	10.9678.8720	1	EA	CODEWHEEL, 120 COUNT
3	24.9685.7735	1	EA	BOARD ASSY, PAN/TILT ENCODER, VL500
4	44.9678.0680	1	EA	MOTOR, 3-PHASE SZ 23 HIGH TORQUE
5	53.2200.0008	4	EA	NUT, 8-32 KEPS SS
6	53.6558.0001	2	EA	SCREW, 6-32X3/8" PPZ
7	53.6575.0004	4	EA	SCREW, 8-32X5/8" PPZ
8	55.6627.0001	2	EA	WASHER, #6 SPLIT LOCK
9	84-0100	0.5	IN	TAPE, KAPTON, 0.035" WIDE P221

## VL500 Pan/Tilt Motor Assembly (continued)



## Drive Pulley Detail &amp; Installation

**Drive Pulley Installation:**

- Step 1. Apply one drop of Loctite 603 to motor shaft.
- Step 2. Install drive pulley on motor shaft using twisting motion to insure coverage of shaft with loctite.
- Step 3. Do not allow Loctite to drip into motor bearing.
- Step 4. Set pulley height as shown above.
- Step 5. Apply Loctite 242 to pulley set screws. Insure set screws are aligned and tightened on flat sides of motor shaft.

**Note:** Vari-Lite recommends that this assembly be replaced as a complete assembly. Although you can replace only the motor, the pulley (Item 2) is bonded to the motor shaft during assembly and cannot be removed intact. If you order a replacement motor (Item 4), also order the pulley (Item 2). Contact Vari-Lite Customer Service for installation information.

Figure 3-43: VL500 Pan/Tilt Motor Assembly

## VL500 MCB/FAN Assembly

21.9685.0731 Rev 0

Refer to [Figure 3-44](#).

No.	Item	Qty.	UM.	Description
1	10.9676.0735	2	EA	HEATSINK, PAN/TILT DRIVERS
2	10.9676.0885	2	EA	PAD, THERMAL TRANSFER, PAN/TILT
3	10.9685.0594	1	EA	BRACKET, FAN, MCB
4	10.9685.0595	1	EA	SEAL, AIR
5	<a href="#">23.9685.0782</a>	1	EA	ASSY, FAN, MCB
6	<a href="#">24.9685.3730</a>	1	EA	MCB, VL500
7	53.2200.0004	5	EA	NUT, 4-40 KEPS SS
8	53.6556.0001	2	EA	SCREW, 4-40X3/4" PPZ
9	53.6592.0001	3	EA	SCREW, 4-40X1/2" PPB
10	55.6537.0001	2	EA	WASHER, #4 LOCK INTERNAL TOOTH

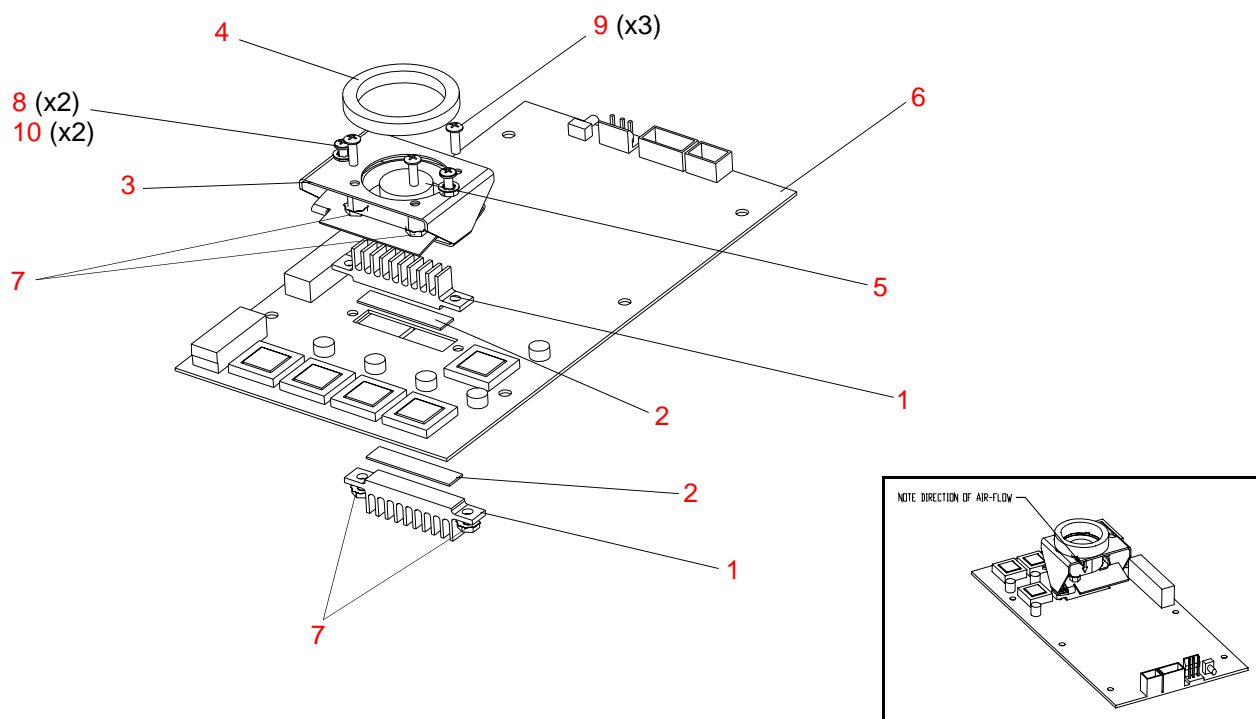


Figure 3-44: VL500 MCB/Fan Assembly

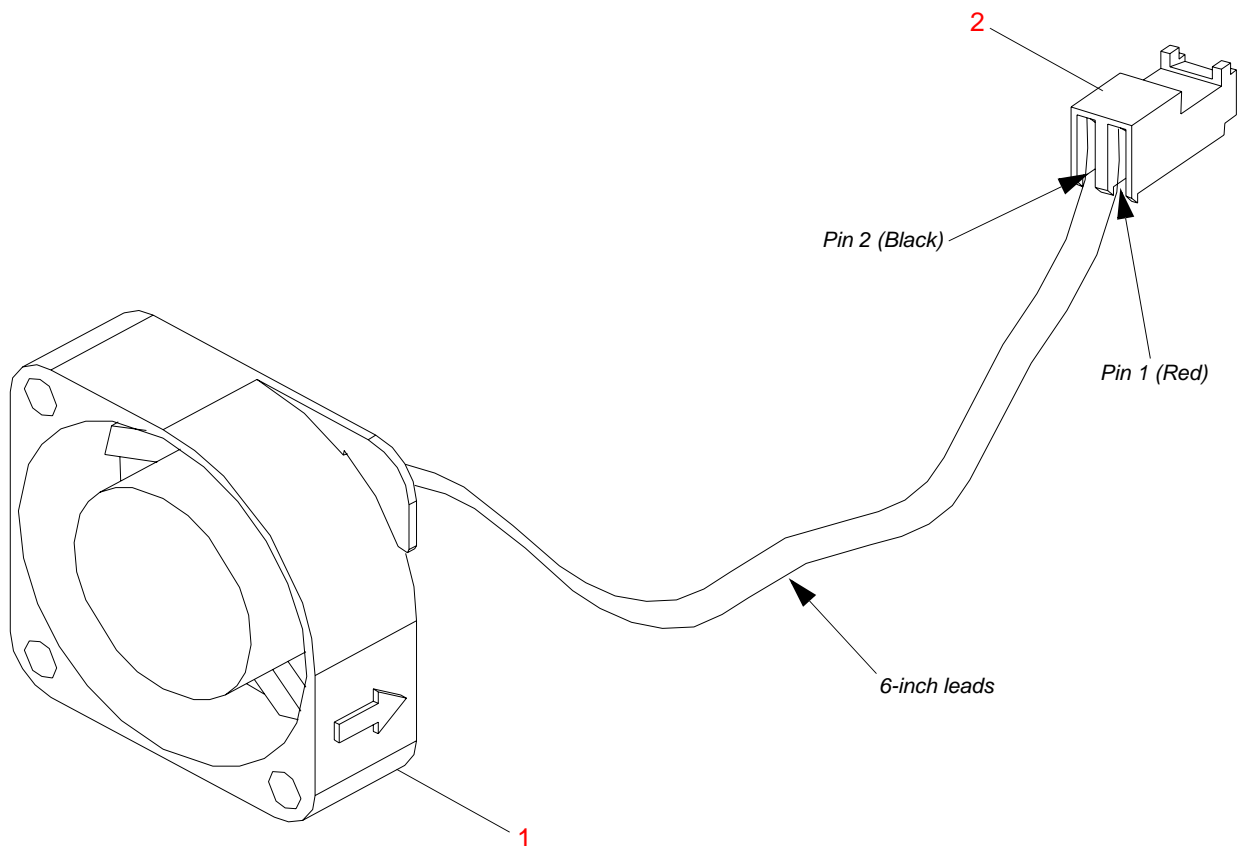


## MCB-Fan Assembly

23.9685.0782 Rev 0

Refer to [Figure 3-43](#).

No.	Item	Qty.	UM.	Description
1	40.7113.0007	1	EA	FAN, 12VDC, 30X10 MM, 3.3CFM
2	52.6450.0002	1	EA	CONNECTOR, MTA 100 IDC 2-POS, 28 AWG



**Figure 3-45: MCB-Fan Assembly**

## Yoke Crossmember Assembly (VL500/VL500D/ VL500A)

21.9685.0515 Rev E

Refer to [Figure 3-46](#).

No.	Item	Qty.	UM.	Description
1	10.9685.0547	1	EA	BUSHING, WIRE PROTECTION, 0.95" OD
2	10.9685.7590	1	EA	TOGGLE STOP, PAN
3	10.9685.7591	1	EA	TOGGLE, PAN
4	<a href="#">21.9685.0512</a>	1	EA	ASSY, LOWER CROSSMEMBER
5	<a href="#">21.9685.0513</a>	1	EA	ASSY, UPPER CROSSMEMBER
6	<a href="#">21.9685.0535</a>	1	EA	ASSY, PAN TUBE
7	53.6552.0002	8	EA	SCREW, 8-32X1/2" PFB
8	53.6667.0005	2	EA	SCREW, 10-32X3/8" SET CUP POINT
9	54.1206.0014	3	EA	RING, RETAINING 1.375" SHAFT

## Yoke Crossmember Assembly (VL500/VL500D/ VL500A) (continued)

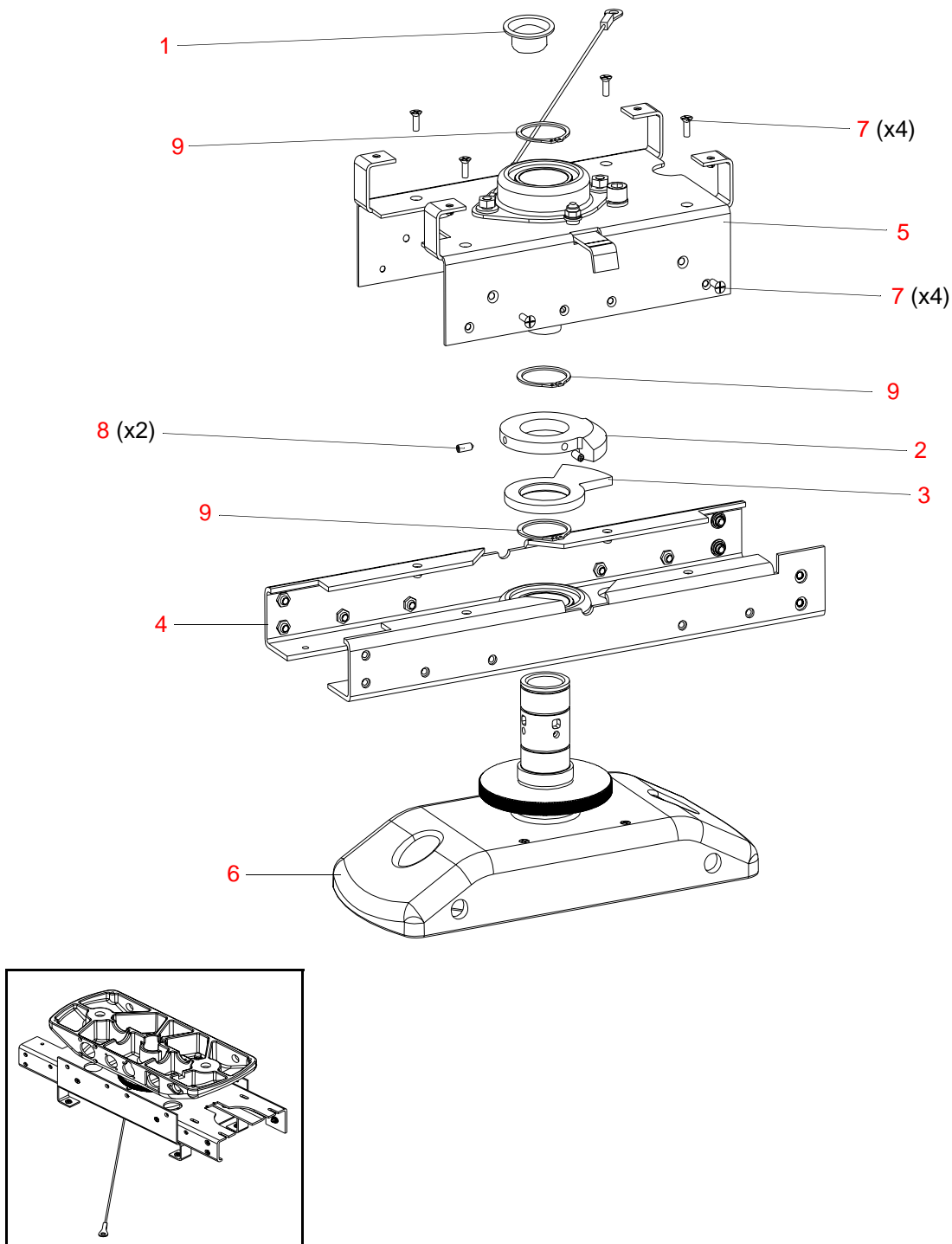


Figure 3-46: Yoke Crossmember Assembly (VL500/VL500D/VL500A)

## Yoke Crossmember Assembly (VL500 80V)

21.9685.0516 Rev 0

Refer to [Figure 3-47](#).

No.	Item	Qty.	UM.	Description
1	10.9685.0547	1	EA	BUSHING, WIRE PROTECTION, 0.95" OD
2	10.9685.7590	1	EA	TOGGLE STOP, PAN
3	10.9685.7591	1	EA	TOGGLE, PAN
4	<a href="#">21.9685.0512</a>	1	EA	ASSY, LOWER CROSSMEMBER
5	<a href="#">21.9685.0513</a>	1	EA	ASSY, UPPER CROSSMEMBER
6	<a href="#">21.9685.0536</a>	1	EA	ASSY, PAN TUBE, VL500 80V
7	53.6552.0002	8	EA	SCREW, 8-32X1/2" PFB
8	53.6667.0005	2	EA	SCREW, 10-32X3/8" SET CUP POINT
9	54.1206.0014	3	EA	RING, RETAINING 1.375" SHAFT

## Yoke Crossmember Assembly (VL500 80V) (continued)

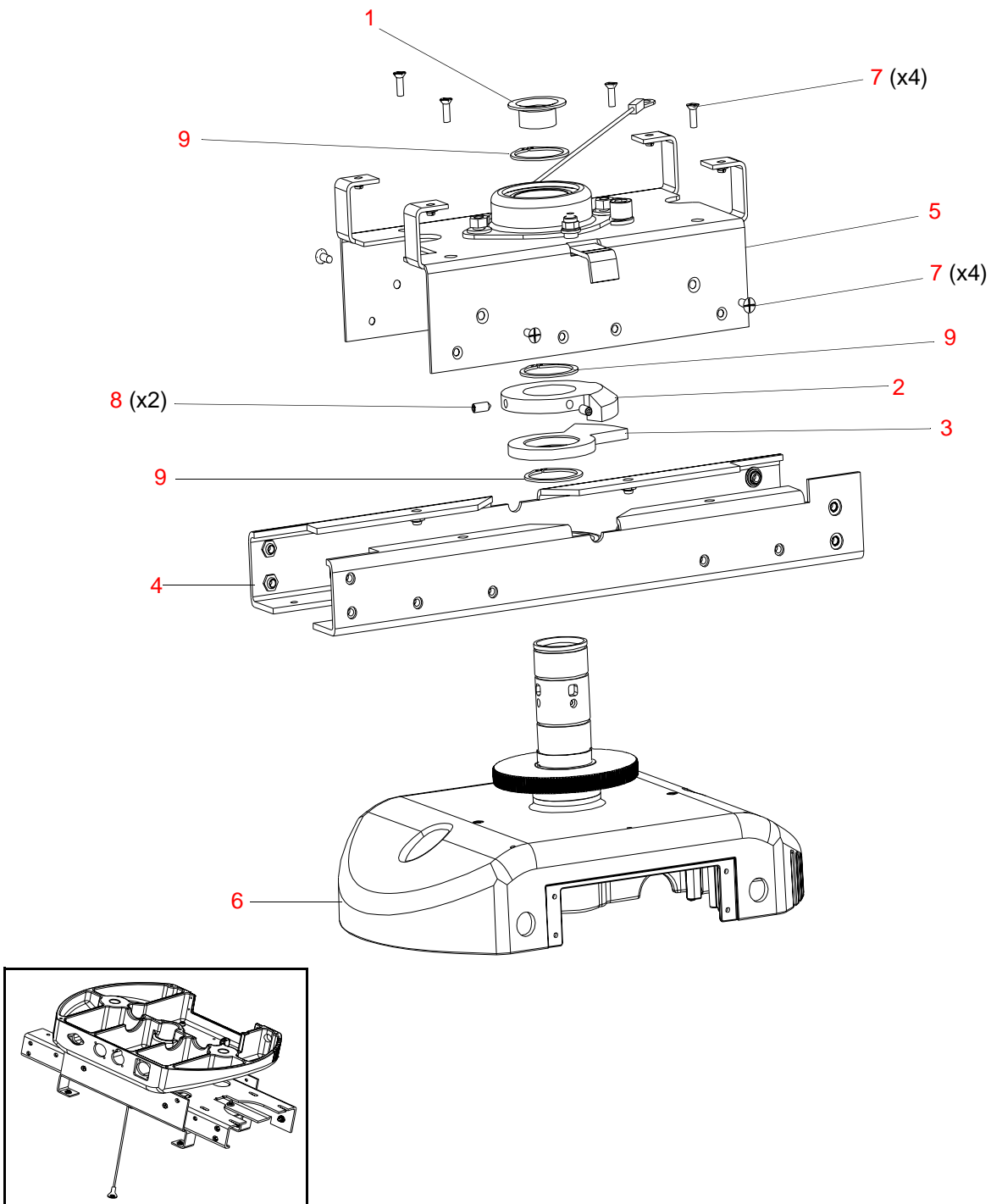


Figure 3-47: Yoke Crossmember Assembly (VL500 80V)

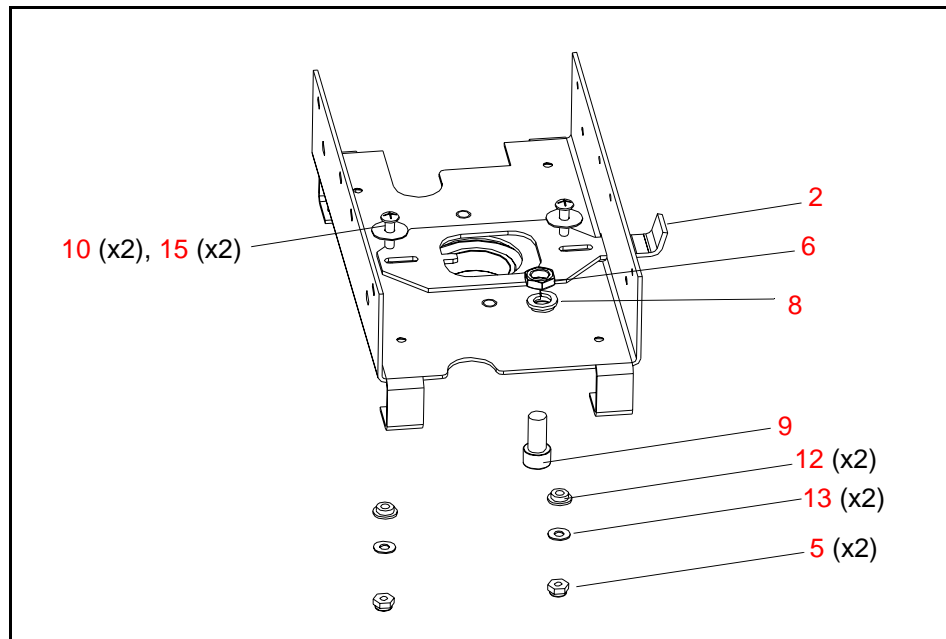
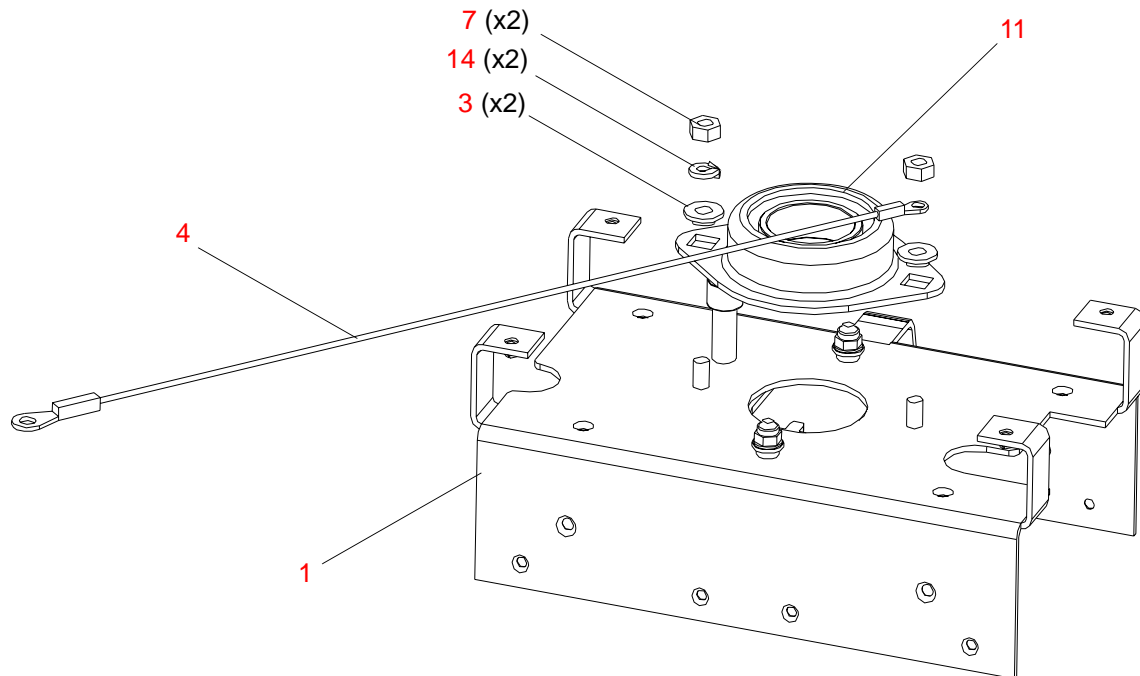
## Lower Crossmember Assembly

21.9685.0512 Rev K

Refer to [Figure 3-48](#).

No.	Item	Qty.	UM.	Description
1	10.9685.1509	1	EA	LOWER CROSSMEMBER
2	10.9685.0522	1	EA	PLATE, PAN LOCK
3	10.9685.0527	2	EA	WASHER, CENTERING, STEP
4	10.9685.0533	1	EA	LANYARD, SAFETY
5	53.2001.0003	2	EA	NUT, 10-32 NYLON INSERT
6	53.2019.0004	1	EA	NUT, 3/8-16 HEX
7	53.2020.0001	2	EA	NUT, 1/4X20 HEX STL ZINC PLTD
8	53.6539.0001	1	EA	WASHER, 3/8" SPLIT LOCK
9	53.6634.0875	1	EA	SCREW, 3/8-16X7/8" SCSS
10	53.6648.0001	2	EA	SCREW, 10-32X3/4" PPZ
11	54.1255.0001	1	EA	ASSY, BEARING/HOUSING
12	54.1261.0001	2	EA	BUSHING, LOW DAMP THRMOPLS.189
13	55.3301.0010	2	EA	WASHER, #10 FLAT
14	55.6549.0001	1	EA	WASHER, 1/4" SPLIT LOCK
15	55.6677.0035	2	EA	WASHER, 0.750" OD, 0.187" ID

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Lower Crossmember Assembly (continued)

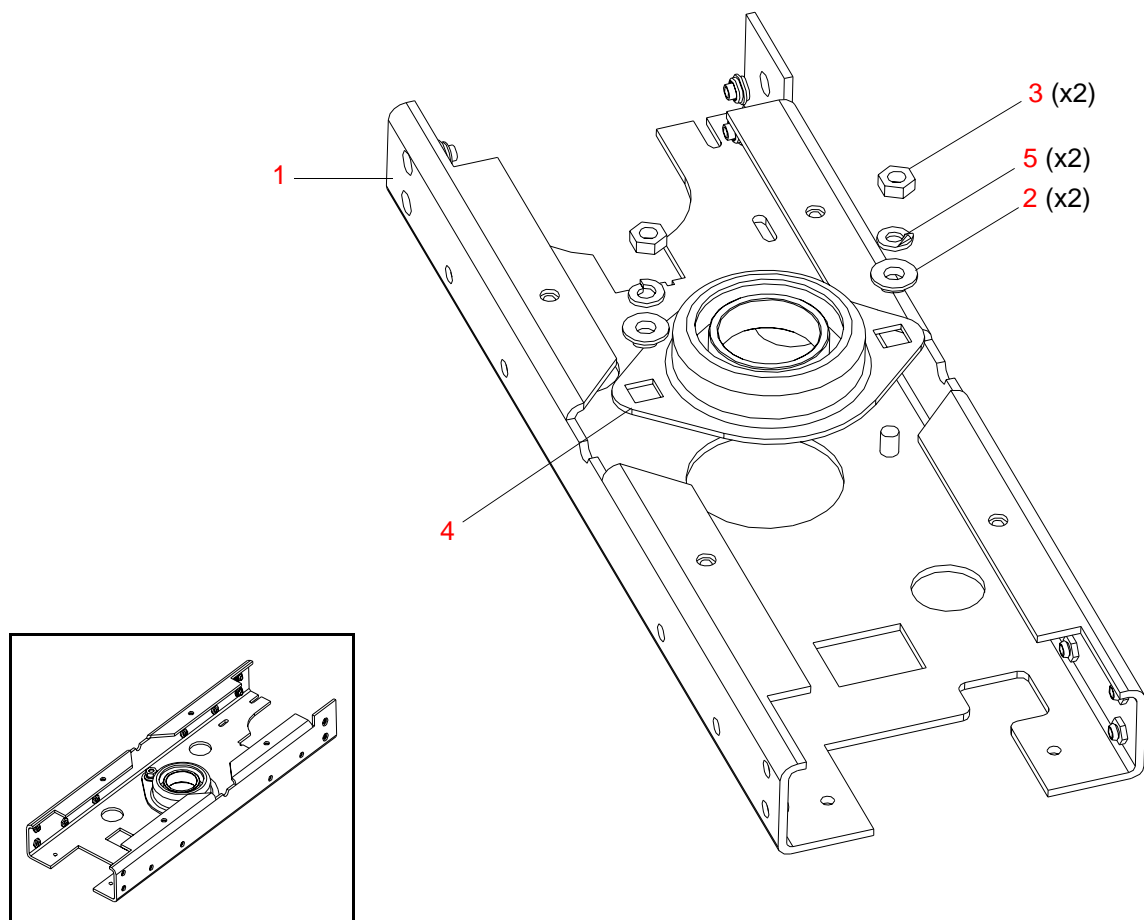
**Figure 3-48: Lower Crossmember Assembly**

## Upper Crossmember Assembly

21.9685.0513 Rev H

Refer to [Figure 3-48](#).

No.	Item	Qty.	UM.	Description
1	10.9685.1510	1	EA	UPPER CROSSMEMBER
2	10.9685.0527	2	EA	WASHER, CENTERING, STEP
3	53.2020.0001	2	EA	NUT, 1/4X20 HEX STL ZINC PLTD
4	54.1255.0001	1	EA	ASSY, BEARING/HOUSING
5	55.6549.0001	2	EA	WASHER, 1/4" SPLIT LOCK



**Figure 3-49: Upper Crossmember Assembly**

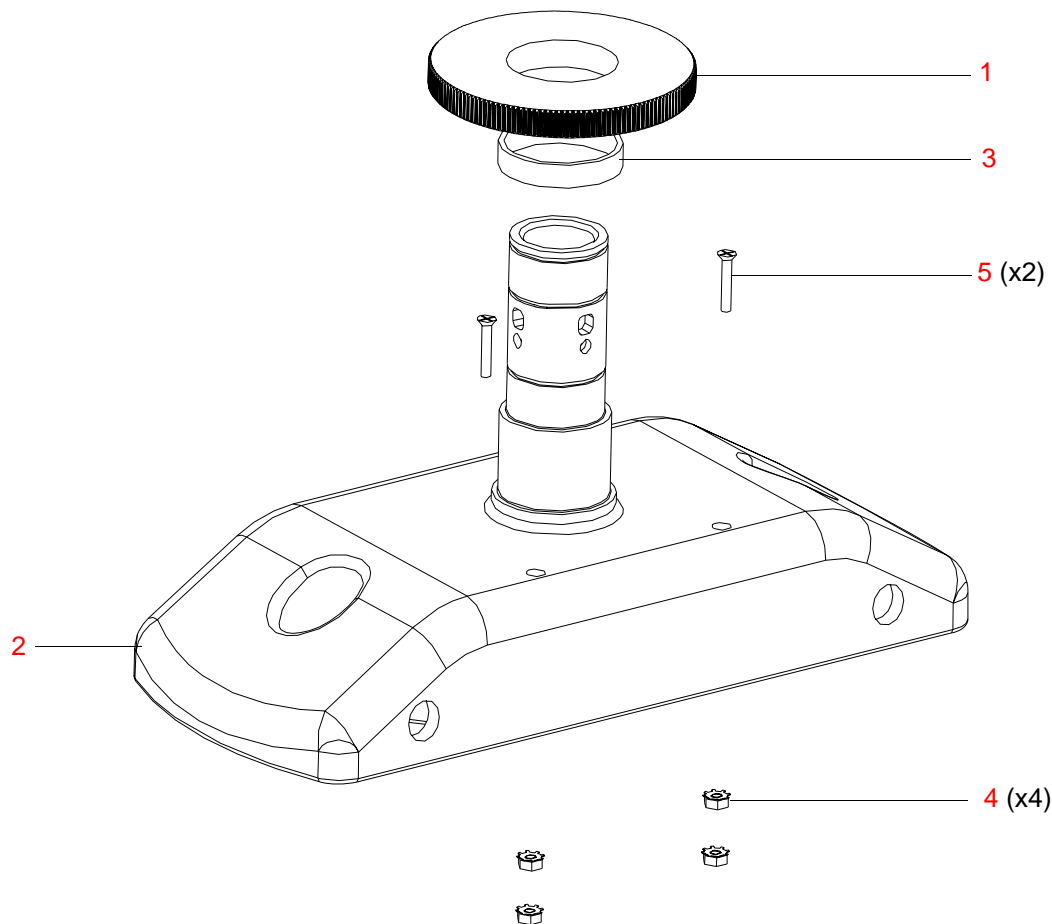


## Pan Tube Assembly (VL500/VL500D/VL500A)

21.9685.0535 Rev D (VL500/VL500D/VL500A)

Refer to [Figure 3-50](#).

No.	Item	Qty.	UM.	Description
1	10.9685.0521	1	EA	PULLEY, DRIVEN, PAN/TILT
2	10.9685.0531	1	EA	PAN TUBE
3	10.9685.0532	1	EA	PAN PULLEY SPACER
4	53.2200.0006	4	EA	NUT, 6-32 KEPS SS
5	53.6608.0750	2	EA	SCREW, 6-32X3/4" PFB



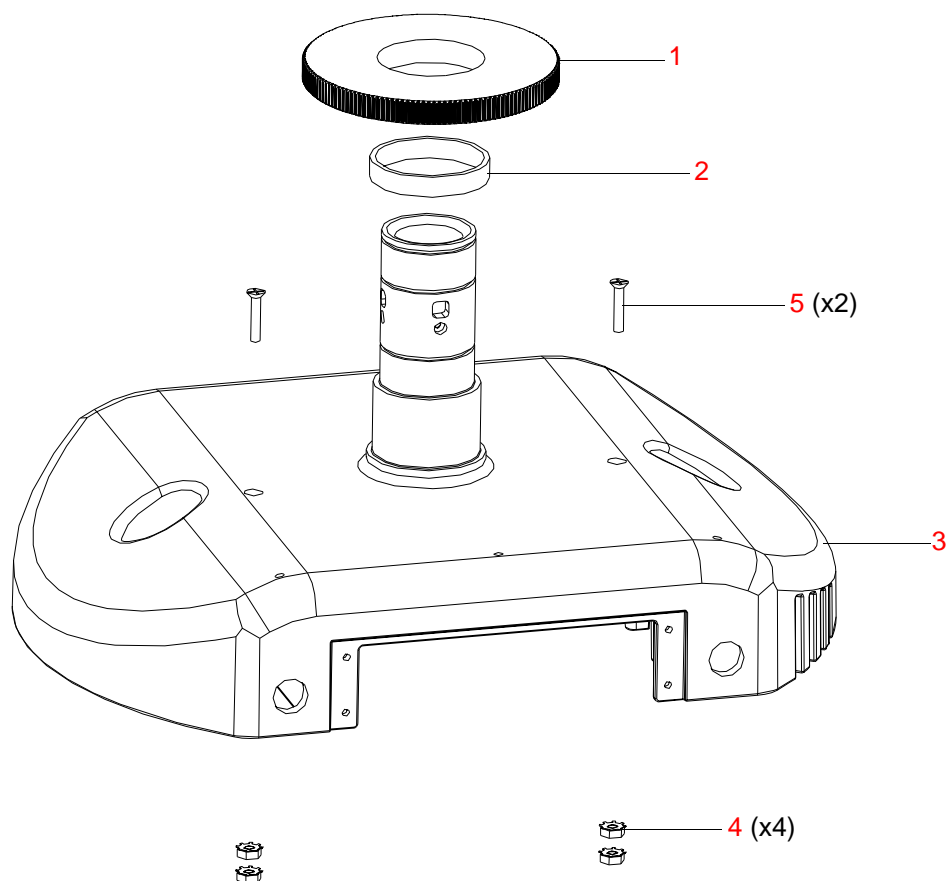
**Figure 3-50: Pan Tube Assembly (VL500/VL500D/VL500A)**

## Pan Tube Assembly (VL500 80V)

21.9685.0536 Rev A (VL500 80V)

Refer to [Figure 3-51](#).

No.	Item	Qty.	UM.	Description
1	10.9685.0521	1	EA	PULLEY, DRIVEN, PAN/TILT
2	10.9685.0532	1	EA	PAN PULLEY SPACER
3	12.9685.1553	1	EA	PAN TUBE, 80V
4	53.2200.0006	4	EA	NUT, 6-32 KEPS SS
5	53.6608.0750	2	EA	SCREW, 6-32X3/4" PFB



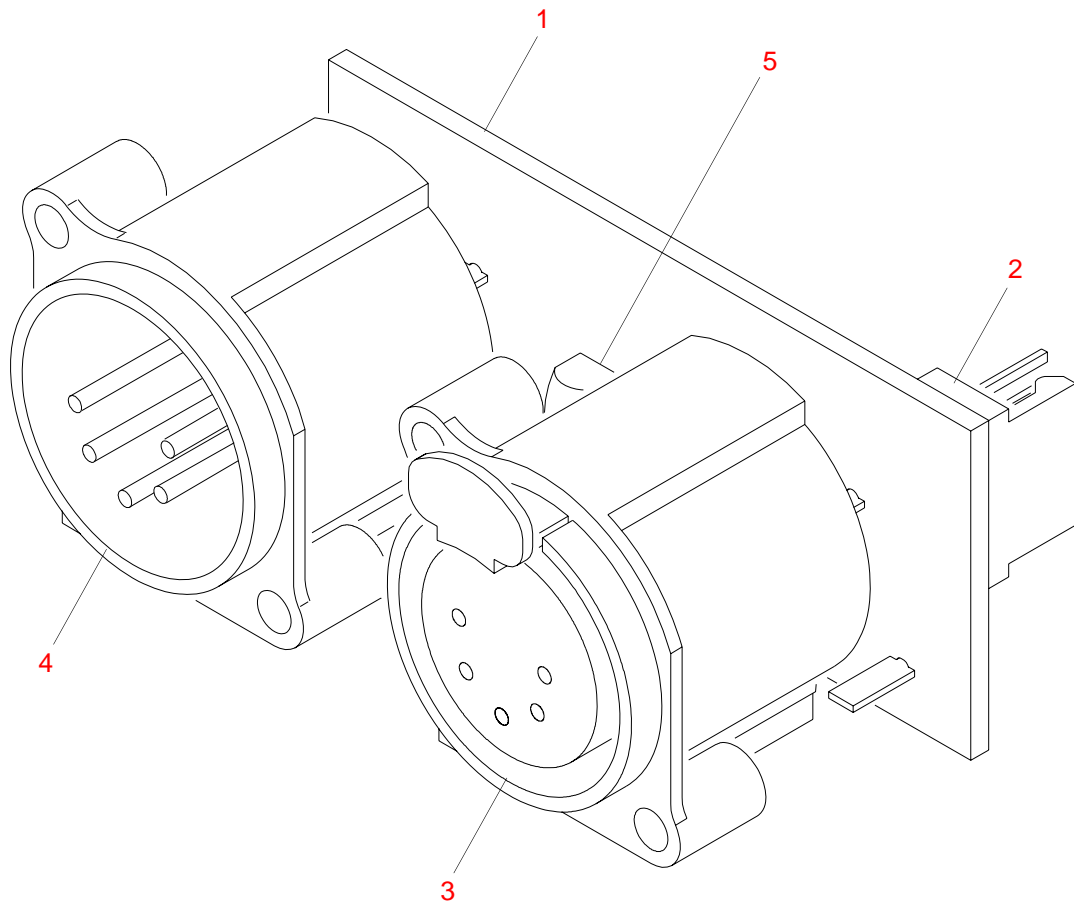
**Figure 3-51: Pan Tube Assembly (VL500 80V)**

## DMX Input PCB Assembly

24.9663.3895 Rev 0

Refer to [Figure 3-52](#).

No.	Item	Qty.	UM.	Description	Ref
1	17.9663.3895	1	EA	PCB, DMX INPUT	-
2	52.6259.0006	1	EA	HEADER, 5POS MTA FRCT LOK STRT	J3
3	52.6625.0006	1	EA	CONN, RECEPT XLR 5PIN FEMALE	J1
4	52.6626.0006	1	EA	CONN, RECEPT XLR 5PIN MALE	J2
5	62.3039.0102	1	EA	CAP, 1000PF 250V RAD CER DISC 20% X-Y	C1



**Figure 3-52: DMX Input PCB Assembly**

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## Notes

## Cables



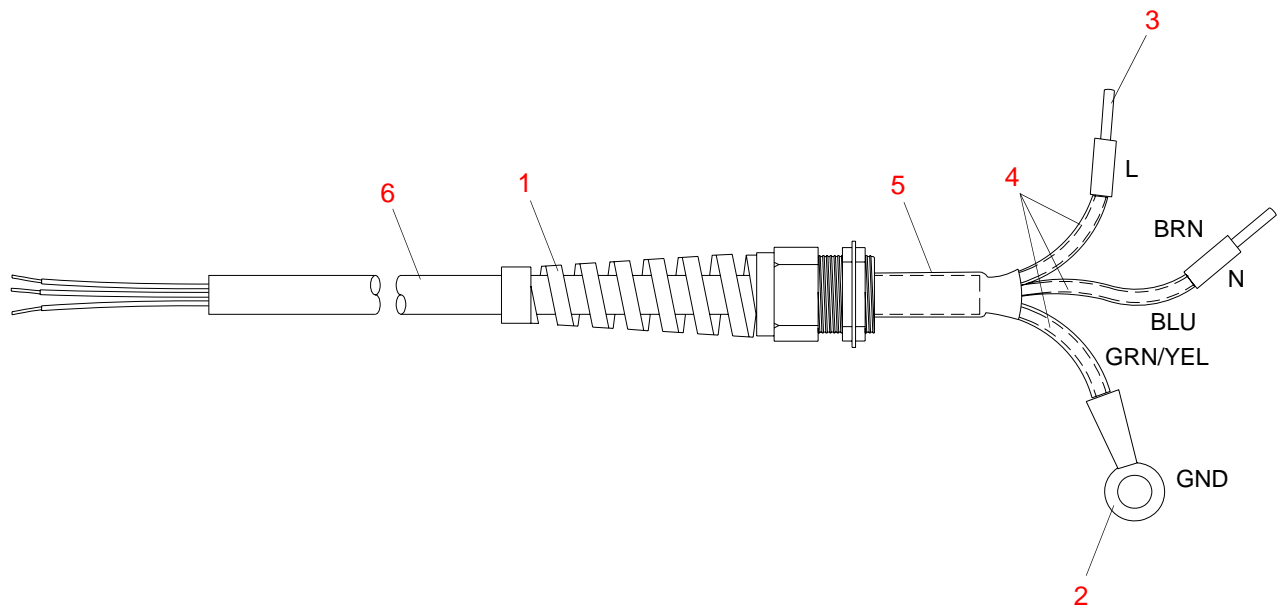
**Note:** Cables are only available as complete assemblies. The information contained in this section is for reference only.

### Incandescent Power Input Cable Assembly

25.9663.2030 Rev A (VL500 Only)

Refer to [Figure 3-53](#).

No.	Item	Qty.	UM.	Description
1	52.6274.2313	1	EA	STRAIN RELIEF, SKINTOP FLEX TYPE PG13 BLK
2	52.8231.0005	1	EA	TERM, RING #6 BLUE 16-14 AWG REEL PIDG
3	52.8298.1160	2	EA	FERRULE, WIRE 1X16 AWG L2=8MM BLACK
4	55.2268.0187	1	FT	HEATSHRINK, 3/16" CLEAR KYNAR VDE UL 600V 150DEG C
5	55.2268.0500	0.13	FT	HEATSHRINK, 1/2" CLEAR KYNAR VDE UL 600V 150DEG C
6	73.9636.0153	4	FT	CORDAGE, 1.5/3 750V 60C EURO BLK HD-22 11MMOD



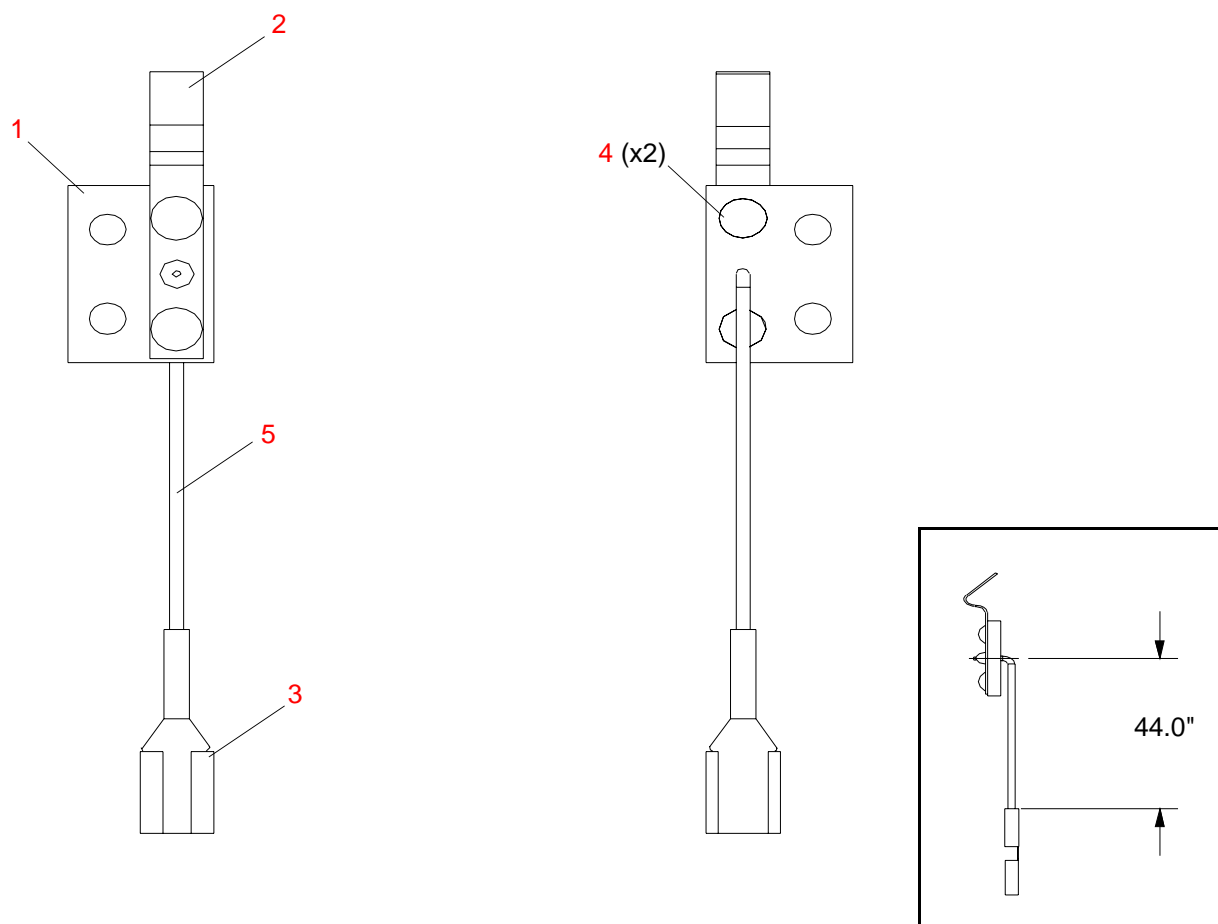
**Figure 3-53: Incandescent Power Input Cable Assembly (VL500 Only)**

## Disconnect Cable Assembly

25.9685.0350 Rev B

Refer to [Figure 3-54](#).

No.	Item	Qty.	UM.	Description
1	10.9685.0351	1	EA	MOUNT, DISCONNECT
2	10.9685.0352	1	EA	CONTACT, DISCONNECT
3	52.8230.0003	1	EA	RECPT, 1/4" FASTON, 22 - 18 AWG TAPE
4	53.6534.0006	2	EA	RIVET, SOLID, 0.094" DIA X 3/16" AL 100 DEG CSK
5	73.1624.0005	45	IN	WIRE, 24 AWG 300V TYPE EE MIL-W-16878/5 GRN



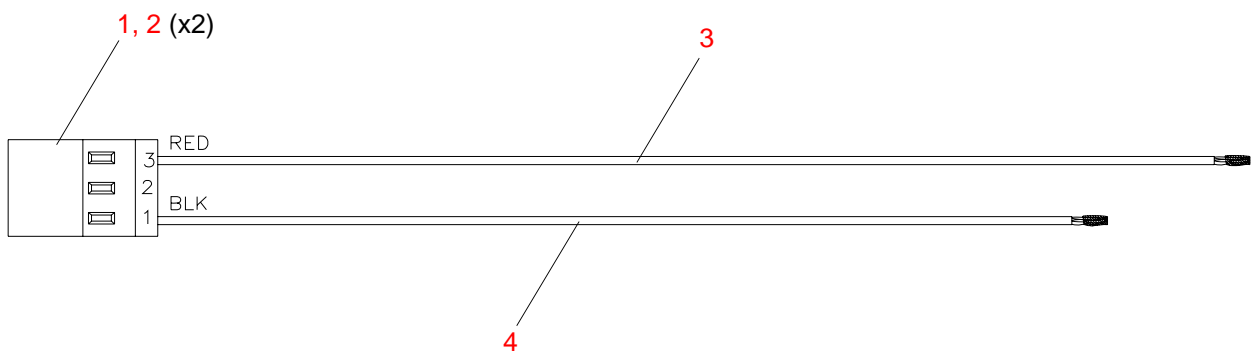
**Figure 3-54: Disconnect Cable Assembly**

## 80V LVS AC Cable Assembly

25.9685.0742 Rev 0

Refer to [Figure 3-55](#).

No.	Item	Qty.	UM.	Description
1	52.6264.0004	1	EA	CONN HOUSING, 3-POS SL156 W/ RAMP NO TABS
2	52.8317.0002	2	EA	CONTACT, SL156 24-18AWG
3	73.6018.0002	0.71	FT	WIRE, 18 AWG 600V 105DEGC PVC RED UL1015
4	73.6018.0010	0.63	FT	WIRE, 18 AWG 600V 105DEGC PVC BLACK UL1015



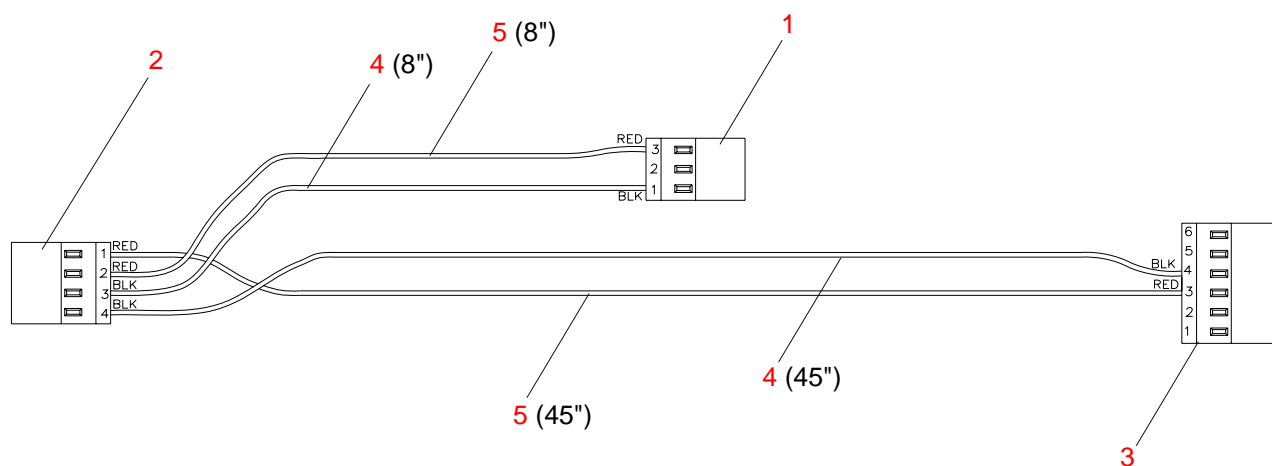
**Figure 3-55: 80V LVS AC Cable Assembly**

## 24V Power Cable Assembly (VL500 80V)

25.9685.0744 Rev 0

Refer to [Figure 3-56](#).

No.	Item	Qty.	UM.	Description
1	52.6442.2003	1	EA	RECEPT, 3 POS MTA156 W/TAB YEL (20 AWG)
2	52.6442.2004	1	EA	RECEPT, 4 POS MTA156 W/TAB YEL (20 AWG)
3	52.6442.2006	1	EA	RECEPT, 6 POS MTA156 W/TAB YEL (20 AWG)
4	73.7137.0011	4.42	FT	WIRE, 20 AWG 600V 200 DEG-C, FEP BLK STRAND 105/40 0.06 DIA
5	73.7137.0012	4.42	FT	WIRE, 20 AWG 600V 200 DEG-C, FEP RED STRAND 105/40 0.06 DIA



**Figure 3-56: 24V Power Cable Assembly (VL500 80V)**

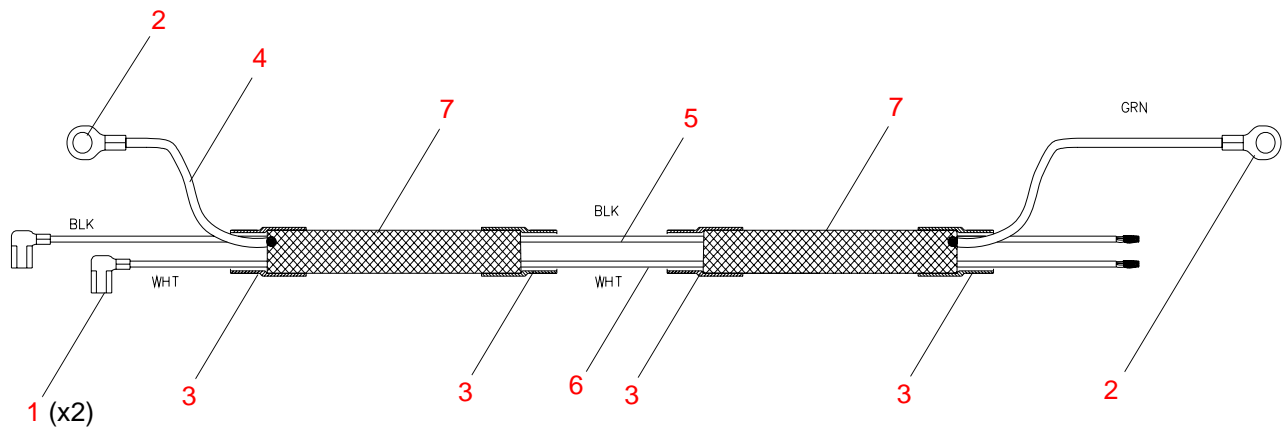


## Yoke Lamp Cable Assembly (VL500 80V)

25.9685.0745 Rev A

Refer to [Figure 3-57](#).

No.	Item	Qty.	UM.	Description
1	52.8244.0001	2	EA	RECEPT, FASTON FLAG, 0.250" 16-14 AWG (REEL)
2	52.8329.0001	2	EA	TERM, RING #6 22-16 AWG NON-INS
3	55.2183.0001	0.33	FT	HEATSHRINK, 1/2" BLACK
4	73.3520.0005	0.63	FT	WIRE, 20 AWG 300V 105 DEGC PVC GRN UL1015
5	73.6014.0012	1.9	FT	WIRE, 14 AWG 600V 200 DEGC FEP BLK STRAND 168/36 0.104 DIA
6	73.6014.0013	1.8	FT	WIRE, 14 AWG 600V 200 DEGC FEP WHT STRAND 168/36 0.104 DIA
7	73.7130.0006	1.25	FT	WIRE, 5/64" TUBULAR BRAID TINNED COPPER



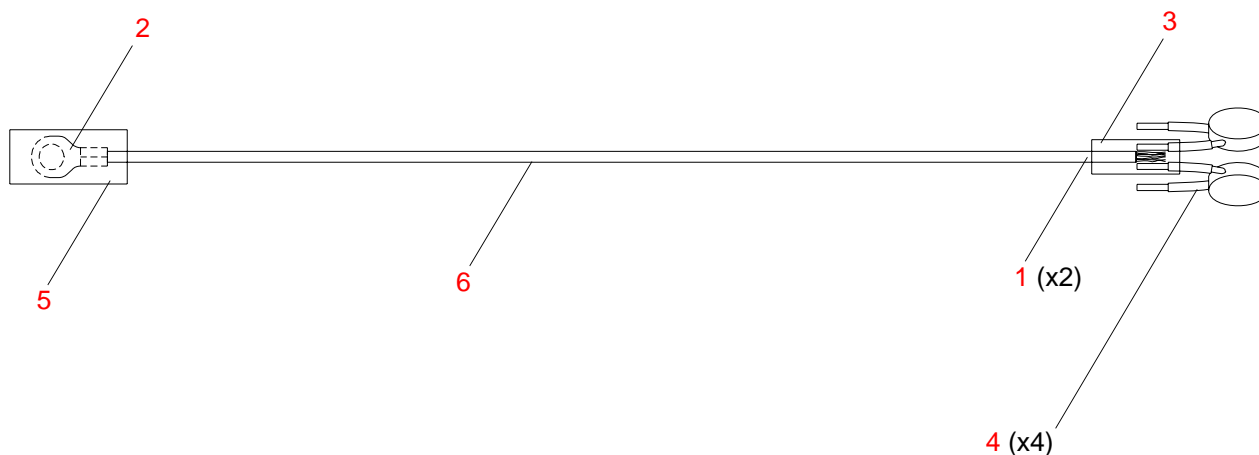
**Figure 3-57: Yoke Lamp Cable Assembly (VL500 80V)**

## 80V Surge Protector Cable Assembly

25.9685.0746 Rev 0

Refer to [Figure 3-58](#).

No.	Item	Qty.	UM.	Description
1	33-0441	2	EA	MOV, 430V 6500A 20MM ZNR
2	52.8231.0005	1	EA	TERM RING, #6 BLUE 16-14 AWG REEL PIDG
3	55.2198.0001	0.08	FT	HEATSRINK, 1/8" BLACK
4	55.2199.0001	0.13	FT	HEATSRINK, 1/16" BLACK
5	55.2200.0001	0.08	FT	HEATSRINK, 3/16" BLACK
6	73.6016.0504	0.75	FT	WIRE, 16 AWG 600V 105DEGC GREEN/YELLOW UL1015



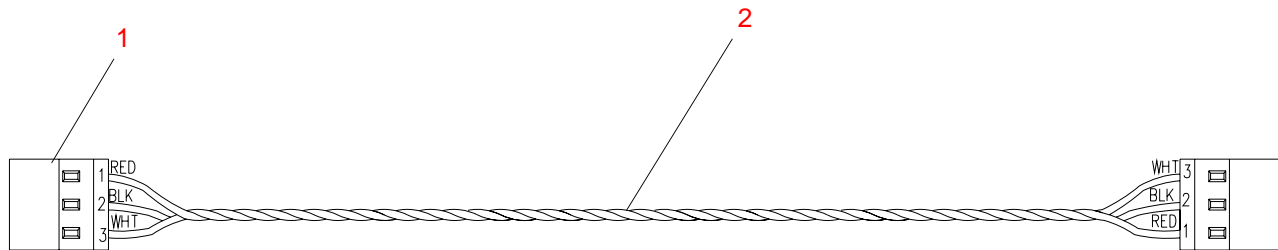
**Figure 3-58: 80V Surge Protector Cable Assembly**

## Dimmer Communication Cable Assembly (VL500/VL500D)

25.9685.0750 Rev B

Refer to [Figure 3-59](#).

No.	Item	Qty.	UM.	Description
1	52.6396.2603	2	EA	RECEPT, 3 POS MTA100 W/POL TAB BLUE CLOSED END
2	73.2326.0029	2.83	FT	WIRE, 26 AWG 3 COND 300V 200 DEGC TEF <BLK-RED-WHT> UL1180



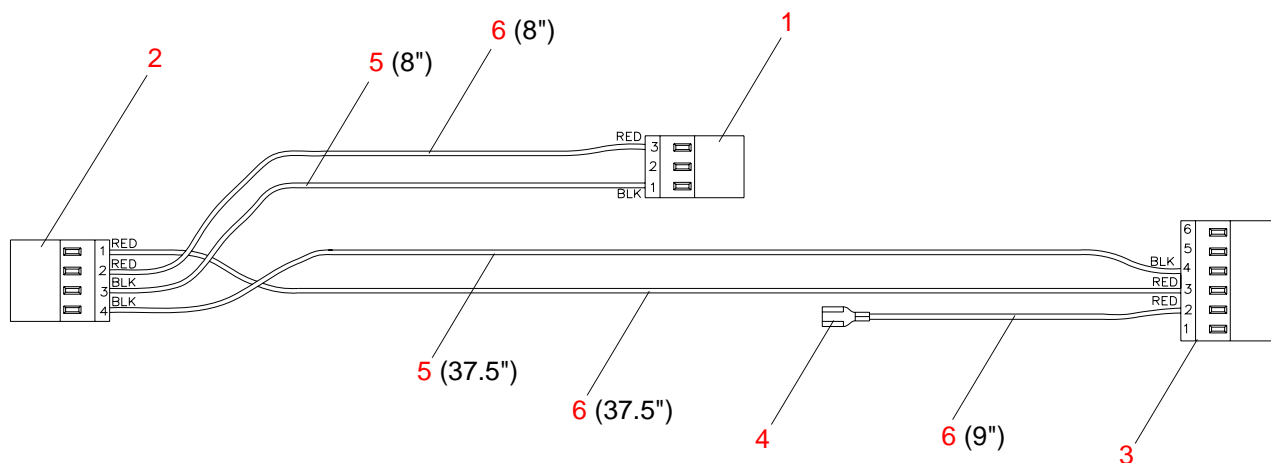
**Figure 3-59: Dimmer Communication Cable Assembly (VL500 / VL500D)**

## 24V Power Cable Assembly (VL500/VL500D)

25.9685.0752 Rev C

Refer to [Figure 3-60](#).

No.	Item	Qty.	UM.	Description
1	52.6442.2003	1	EA	RECEPT, 3 POS MTA156 W/TAB YEL (20 AWG)
2	52.6442.2004	1	EA	RECEPT, 4 POS MTA156 W/TAB YEL (20 AWG)
3	52.6442.2006	1	EA	RECEPT, 6 POS MTA156 W/TAB YEL (20 AWG)
4	52.8271.0005	1	EA	RECEPT, FASTON 1/4" 16-14 AWG INSULATED (REEL)
5	73.7137.0011	3.79	FT	WIRE, 20 AWG 600V 200 DEG-C, FEP BLK STRAND 105/40 0.06 DIA
6	73.7137.0012	4.54	FT	WIRE, 20 AWG 600V 200 DEG-C, FEP RED STRAND 105/40 0.06 DIA



**Figure 3-60: 24V Power Cable Assembly (VL500 / VL500D)**

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## VL500 Motor Cable Assembly

25.9685.0753 Rev B

Refer to [Figure 3-61](#).

No.	Item	Qty.	UM.	Description
1	52.6224.1034	1	EA	COVER, FRONT 34-POS MT LATCHING
2	52.6224.2034	1	EA	COVER, BACK 34-POS MT
3	52.6610.0034	1	EA	CONN, HOUSING 34-POS DBL ROW UNLOADED
4	52.6694.0001	16	EA	CRIMP, TERMINAL WIRE TO WIRE FEMALE 2MM 28-24 AWG
5	52.6696.0001	4	EA	RECEPT, WIRE TO WIRE 4-POS 2MM PITCH 28-24 AWG
6	52.8351.0004	34	EA	CONTACT, 26-22 AWG RECP MTE (REEL)
7	55.2186.0001	2	EA	CABLE TIE, 0.10"X4" SMALL
8	55.6699.0010	1	FT	SLEEVING, 5/16" NOM DIA WOV POLY, ROUNDT 2000
9	73.2326.0123	5.35	FT	WIRE, 26 AWG 4-COND 300V 200DEGC TEF (BLK-BRN-RED-ORG)

## VL500 Motor Cable Assembly (continued)

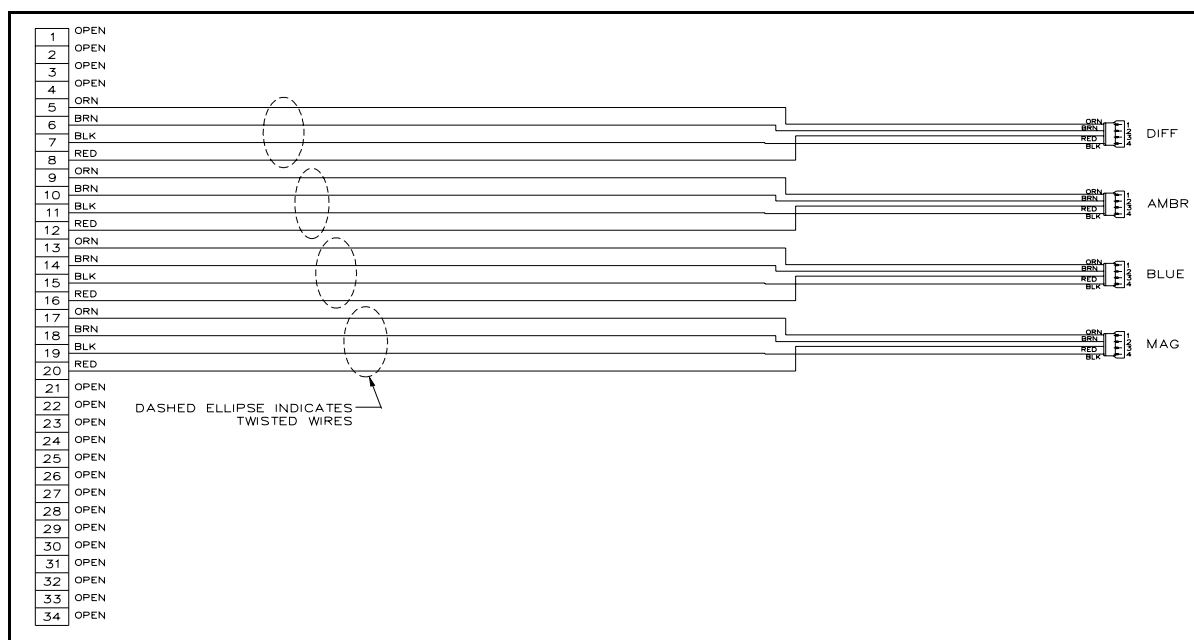
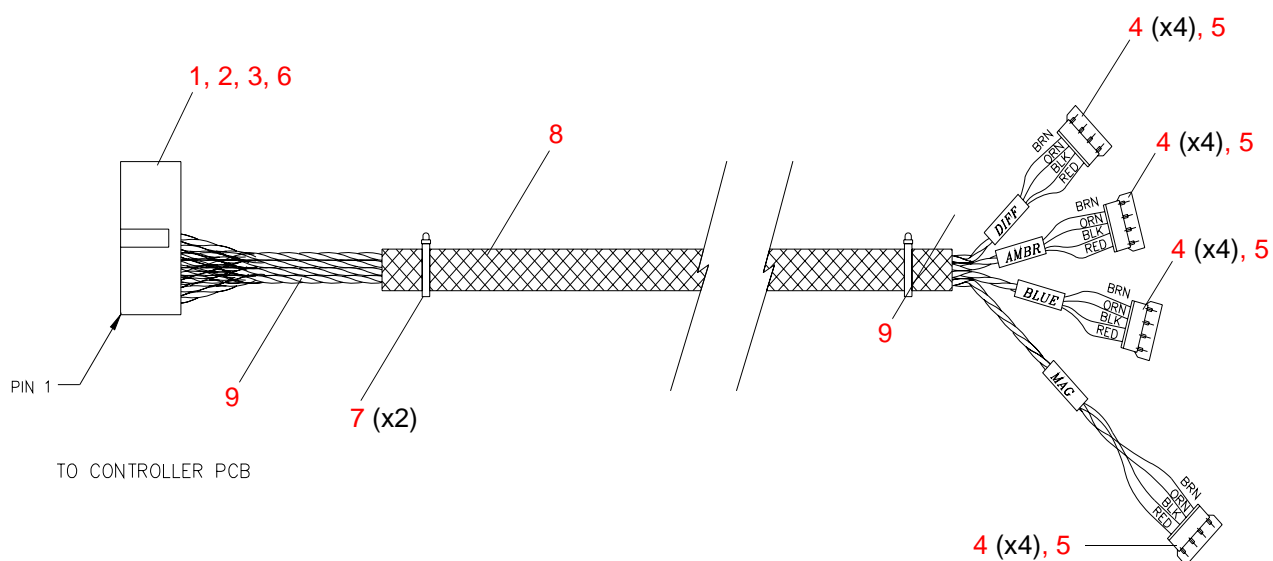


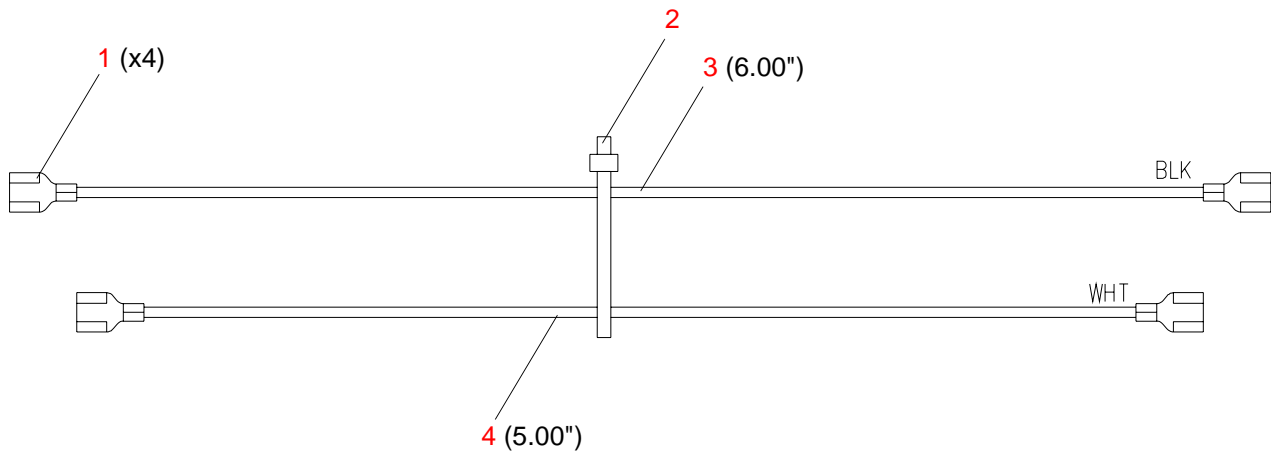
Figure 3-61: VL500 Motor Cable Assembly

## Relay to Ignitor Cable Assembly

25.9685.0755 Rev B

Refer to [Figure 3-62](#).

No.	Item	Qty.	UM.	Description
1	52.8271.0005	4	EA	RECPT, FASTON 1/4" 16-14 AWG INSULATED (REEL)
2	55.2186.0001	1	EA	CABLE TIE, 0.10"X4" SMALL
3	73.6014.0012	0.29	FT	WIRE, 14 AWG 600V 200DEGC FEP BLACK STRAND 168/36 0.104 DIA
4	73.6014.0013	0.42	FT	WIRE, 14 AWG 600V 200DEGC FEP WHITE STRAND 168/36 0.104 DIA



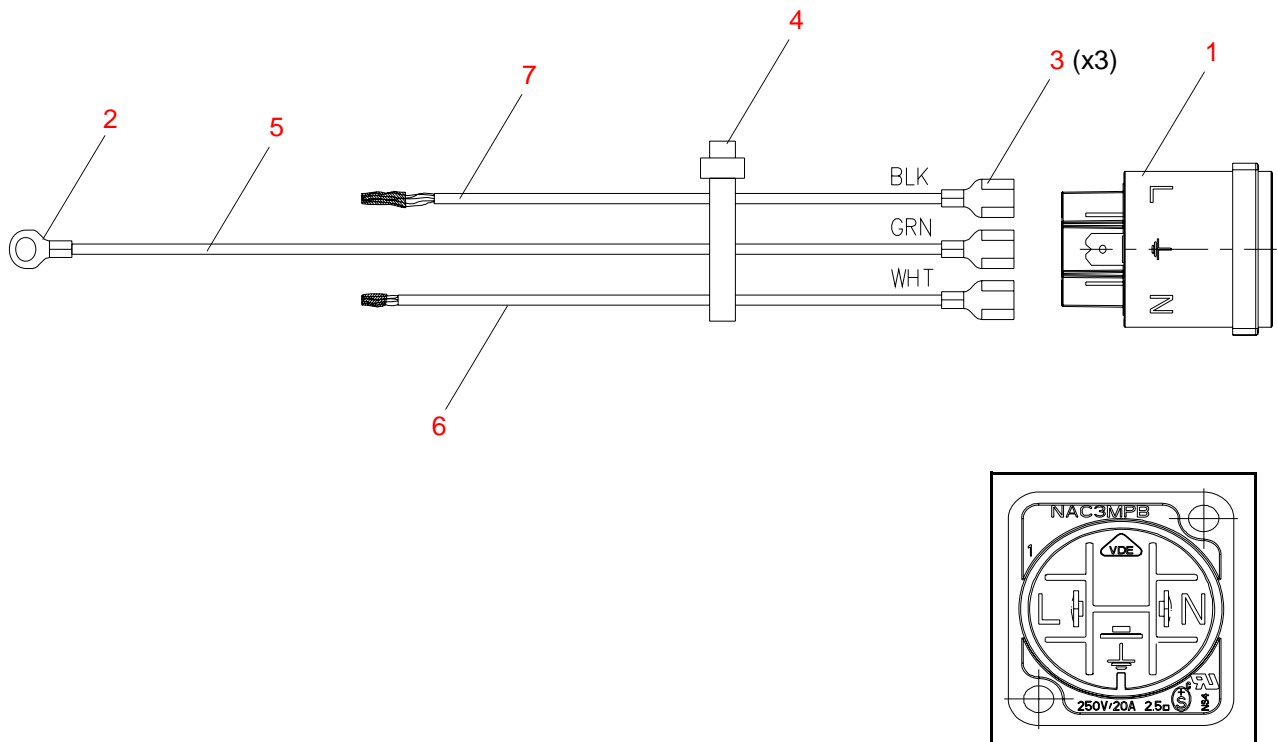
**Figure 3-62: Relay to Ignitor Cable Assembly**

# VL500 AC Input Cable Assembly

25.9685.0756 Rev B

Refer to **Figure 3-63**.

No.	Item	Qty.	UM.	Description
1	52.6541.0003	1	EA	CONN, CHASSIS POWER 3-POLE LOCKING
2	52.8231.0005	1	EA	TERM, RING #6 16-14 AWG REEL PIDG
3	52.8331.0003	3	EA	FASTON RECPT., 16-14 AWG PIDG BLU 0.170" ID
4	55.2186.0001	1	EA	CABLE TIE, 0.10"X4" SMALL
5	73.6014.0005	0.58	FT	WIRE, 14 AWG 600V 105DEGC PVC GRN UL1015
6	73.6014.0009	0.33	FT	WIRE, 14 AWG 600V 105DEGC PVC WHT UL1015
7	73.6014.0010	0.33	FT	WIRE, 14 AWG 600V 105DEGC PVC BLK UL1015



**Figure 3-63: VL500 AC Input Cable Assembly**





## VL500 Pan / Tilt Cable Assembly

25.9685.0758 Rev A

Refer to [Figure 3-65](#) and [Figure 3-66](#).

No.	Item	Qty.	UM.	Description
1	52.6224.0020	1	EA	HOUSING, 20 POS 26-22 AWG PRELOADED MT RECEPT DBL ROW
2	52.6224.1020	1	EA	COVER, LATCH MT RECEPT 20 PIN
3	52.6224.2020	1	EA	COVER, BACK MT 20 PIN
4	52.6524.0004	2	EA	CONN, HOUSING 4 POS RECEPT
5	52.6588.0007	2	EA	HOUSING, 7 POS XH 250V3A 2.5MM PITCH
6	52.7007.0001	8	EA	CONTACT, 28-22 AWG PHOSPHOR BRONZE TIN-PLT SXH
7	55.2186.0001	4	EA	CABLE TIE, 0.10" X 4" SMALL
8	73.2326.0123	9.20	FT	WIRE, 4 COND 300V 200 DEGC TEF <BLK-BRN-RED-ORN>

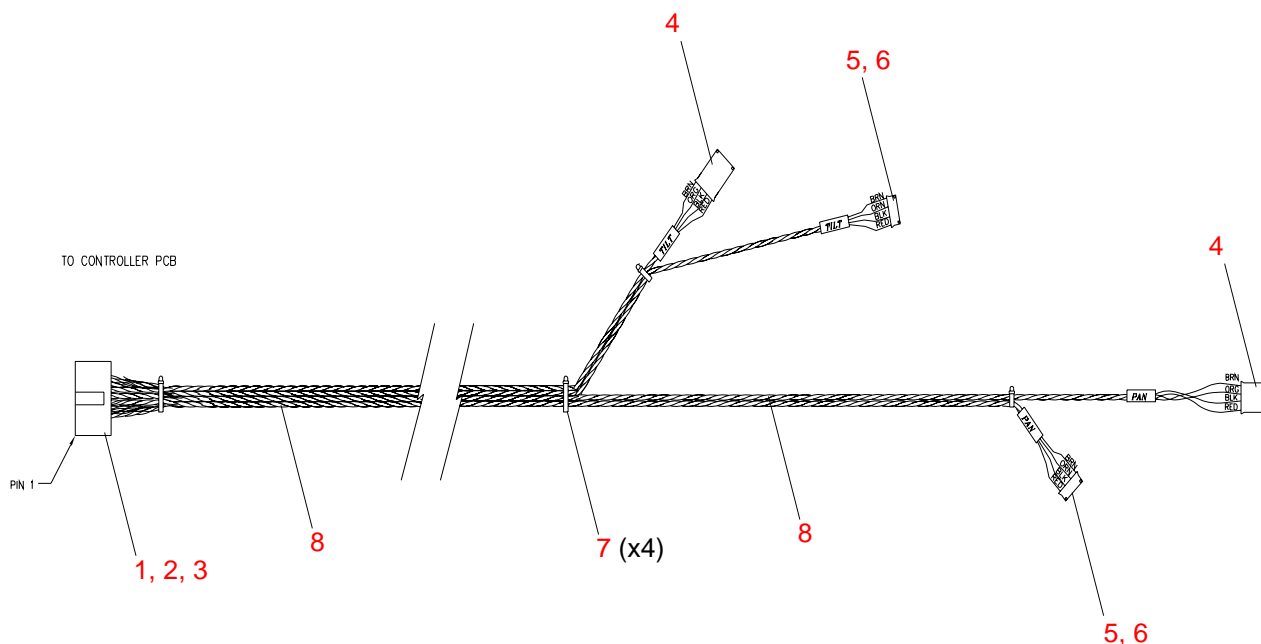


Figure 3-65: VL500 pan / Tilt Cable Assembly

## VL500 Pan / Tilt Cable Assembly (continued)

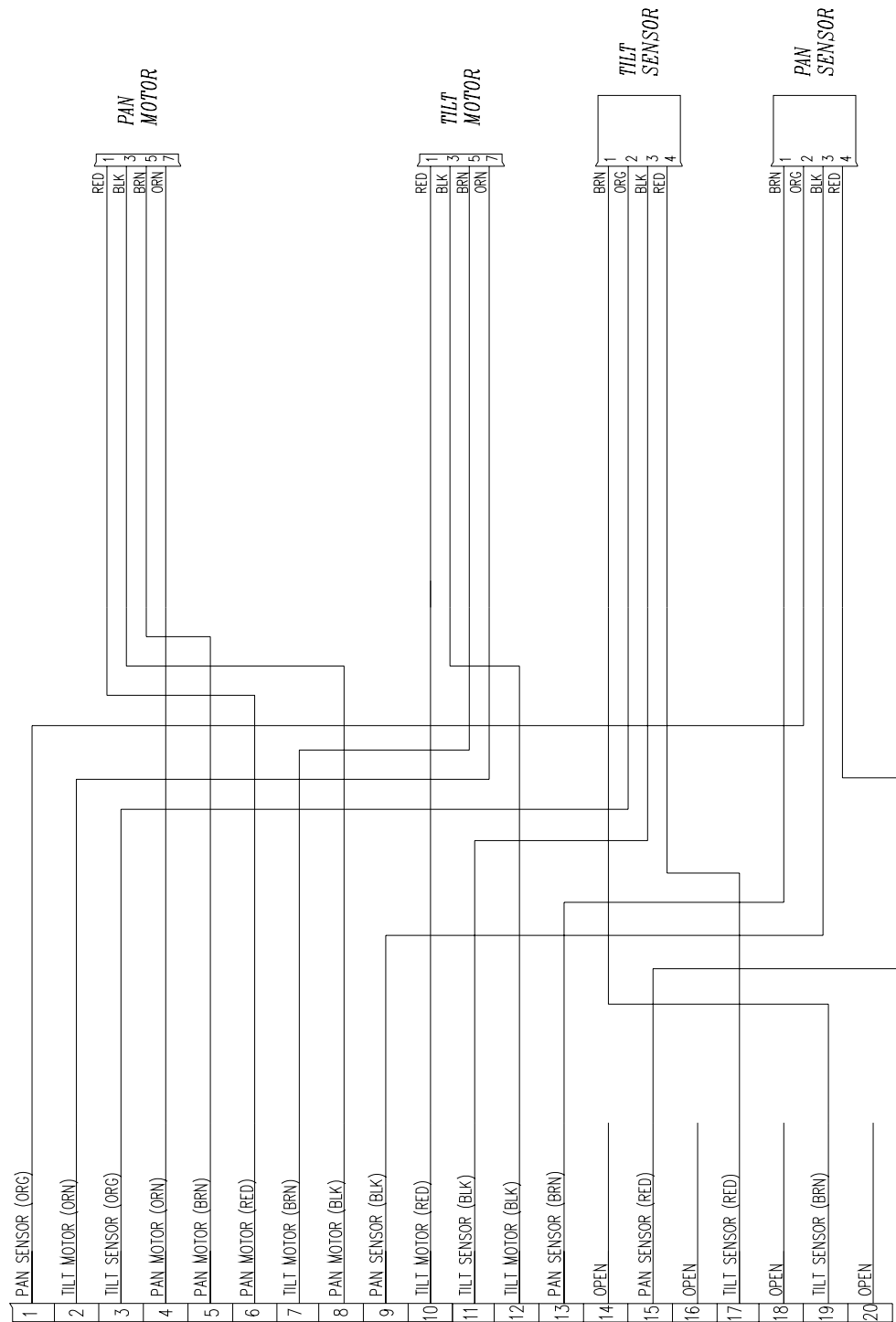


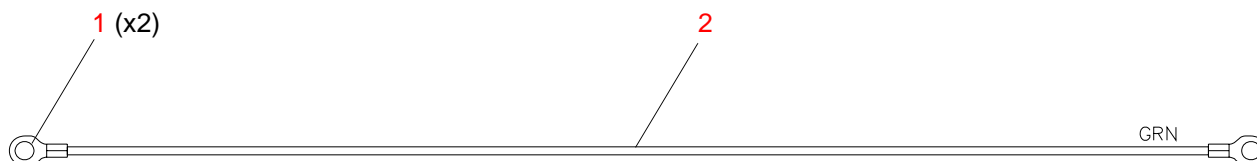
Figure 3-66: VL500 Pan / Tilt Cable Assembly (Pin Outs)

## VL500 Head Grounding Cable Assembly

25.9685.0760 Rev C

Refer to [Figure 3-67](#).

No.	Item	Qty.	UM.	Description
1	52.8231.0000	2	EA	TERM, RING #6 RED 22-16 AWG INSUL REEL
2	73.6014.0011	1.33	FT	WIRE, 14 AWG 600V 200DEGC FEP GRN STRND 168/36 0.104 DIA



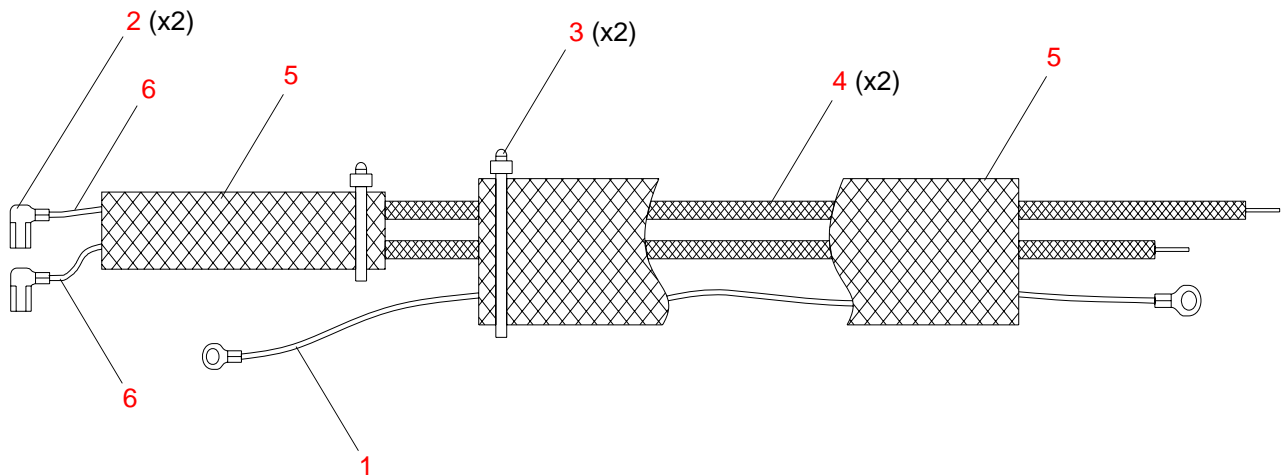
**Figure 3-67: VL500 Head Earthing Cable Assembly**

## VL500 Ignitor to Socket Cable Assembly

25.9685.0766 Rev C

Refer to [Figure 3-68](#).

No.	Item	Qty.	UM.	Description
1	<a href="#">25.9685.0777</a>	1	EA	CABLE ASSY, BACK CAP GROUND, VL500
2	52.8244.0001	2	EA	FASTON RECEPT FLAG, 0.250 16-14 AWG INSULATED (REEL)
3	55.2186.0001	2	EA	CABLE TIE, 0.10"X4" SMALL
4	55.2260.0133	2.33	FT	SLEEVING, FIBERGLASS 0.133" ID
5	55.6699.0010	1.33	FT	SLEEVING, 5/16" NOM. DIA. WOVEN POLY, ROUNDTIT 2000
6	73.3517.0001	4.00	FT	WIRE, 14 AWG 5KV 200DEGC SILICON 7X24/36 STRAND



**Figure 3-68: VL500 Ignitor to Socket Cable Assembly**

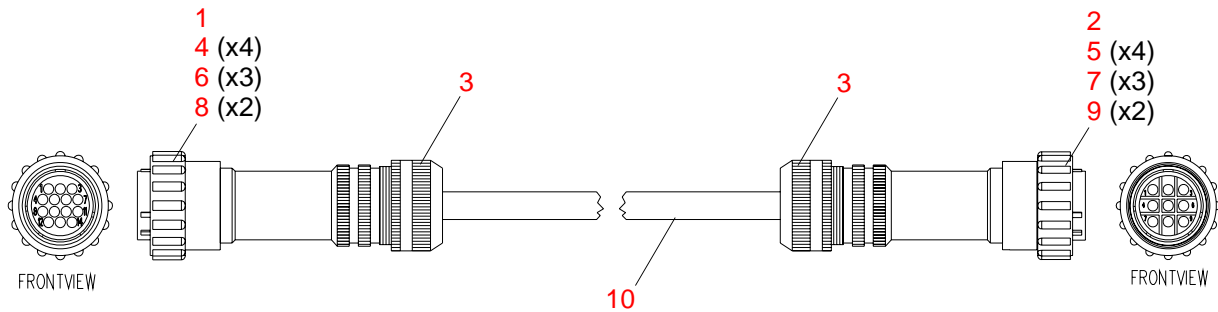
## VL500 Arc Ballast Interconnect Cable Assembly

25.9685.0767 Rev B

Refer to [Figure 3-69](#).

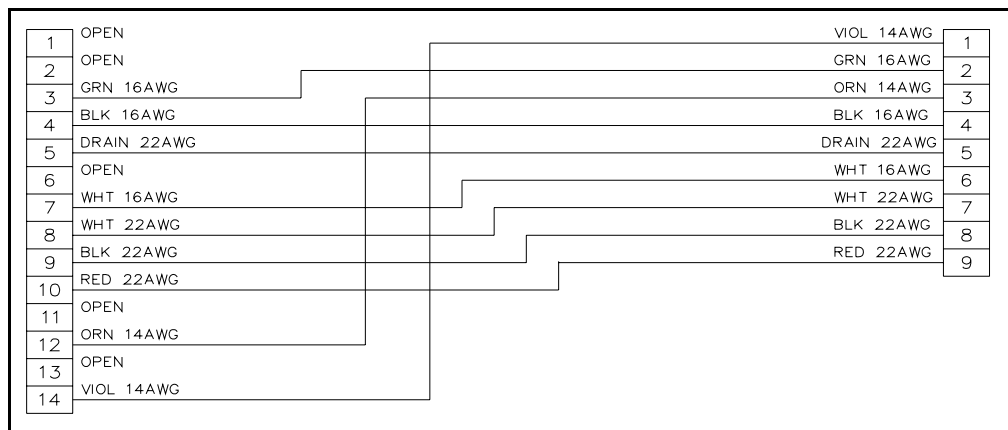
No.	Item	Qty.	UM.	Description
1	52.6400.0020	1	EA	PLUG, 17-14 REV SEX CPC 600V KEY A
2	52.6400.0120	1	EA	PLUG, 17-9 REV SEX CPC 600V KEY A
3	52.6431.0002	2	EA	BACKSHELL, CPC17 NYLON 0.300-0.525 CBL RNG
4	52.8201.0005	4	EA	PIN, GOLD 24-20 AWG TYPE 3+ REEL 0.04-0.08 INS DIA
5	52.8201.0007	4	EA	SOCKET, GOLD 24-20 AWG TYPE 3+ REEL 0.04-0.08 INS DIA
6	52.8341.0001	3	EA	PIN, GOLD 18-14 AWG TYPE 3+ REEL 0.11-0.15 INS DIA
7	52.8342.0001	3	EA	SOCKET, GOLD 18-14 AWG TYPE 3+ REEL 0.11-0.15 INS DIA
8	52.8344.0006	2	EA	PIN, CPC POWER 14 AWG 23A LOOSE
9	52.8344.0008	2	EA	SOCKET, CPC POWER 14 AWG 23A LOOSE
10	73.7087.0013	5.00	FT	CABLE, COMPOSITE V500 ARC POWER INPUT

## VL500 Arc Ballast Interconnect Cable Assembly (Continued)



Pinout		
Pin	Wire	Description
1	OPEN	N/A
2	OPEN	N/A
3	GRN/16 AWG	GROUND
4	BLK/16 AWG	POWER (HOT)
5	DRAIN/22 AWG	DRAIN WIRE
6	OPEN	N/A
7	WHT/16 AWG	NEUTRAL
8	WHT/22 AWG	DATA
9	BLK/22 AWG	DATA
10	RED/22 AWG	DATA
11	OPEN	N/A
12	ORN/14 AWG	LAMP POWER
13	OPEN	N/A
14	VIOL14 AWG	LAMP POWER

Pinout		
Pin	Wire	Description
1	VIOL14 AWG	LAMP POWER
2	GRN/16 AWG	GROUND
3	ORN/14 AWG	LAMP POWER
4	BLK/16 AWG	POWER (HOT)
5	DRAIN/22 AWG	DRAIN WIRE
6	WHT/16 AWG	NEUTRAL
7	WHT/22 AWG	NEUTRAL
8	BLK/22 AWG	DATA
9	RED/22 AWG	DATA



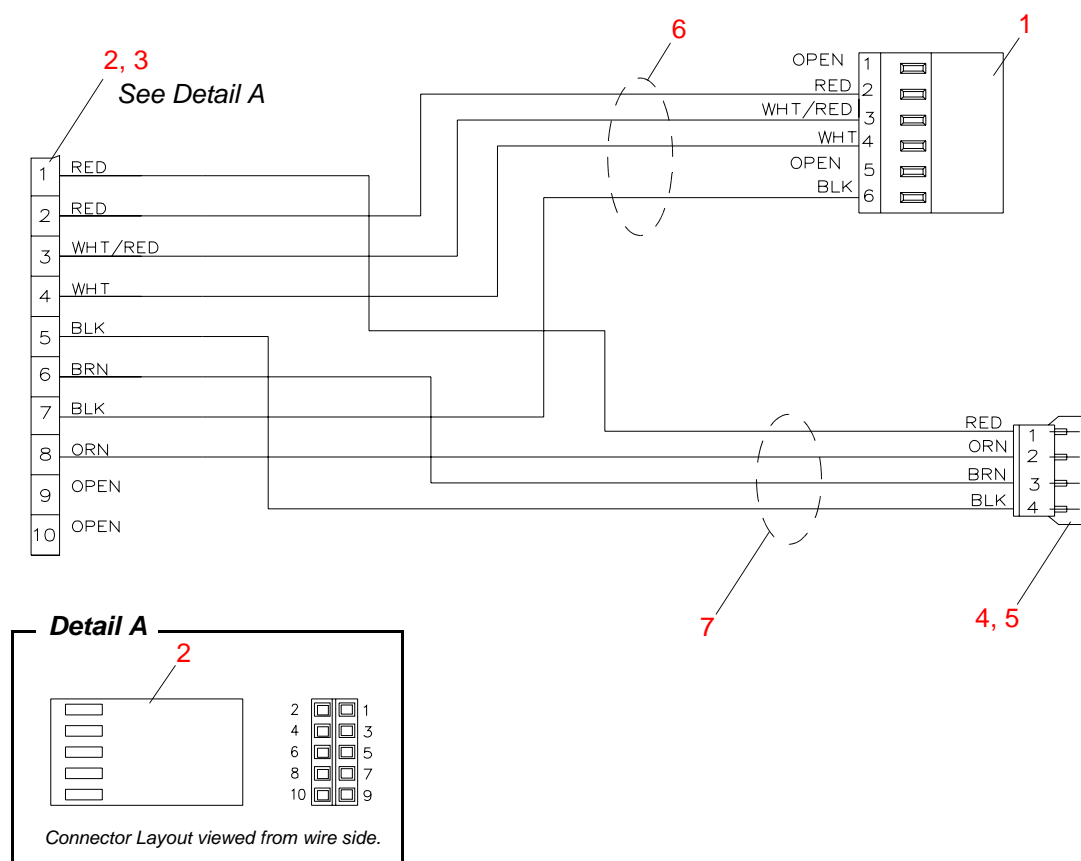
**Figure 3-69: VL500 Arc Ballast Interconnect Cable Assembly**

## VL500 Display Cable Assembly

25.9685.0769 Rev C

Refer to [Figure 3-70](#).

No.	Item	Qty.	UM.	Description
1	52.6363.0001	1	EA	CONN HOUSING, 6 PIN MTA CLOSED END BLUE
2	52.6264.0005	1	EA	CONN HOUSING MOD4 CRIMP SNAP-IN 0.1 X 0.1
3	52.6240.0003	9	EA	CONTACT FEMALE MOD4 CRIMP SNAP-IN
4	52.6696.0001	1	EA	RECEPT, WIRE TO WIRE 4 POS 2 MM PITCH 28-24 AWG
5	52.6694.0001	4	EA	CRIMP TERMINAL WIRE TO WIRE FEMALE 2MM 28-24 AWG
6	73.5126.0130	0.42	FT	WIRE, 26 AWG 4 COND 300V 200 DEGC TEF <BLK-WHT-RED-WHT/RED>
7	73.2326.0123	3.08	FT	WIRE, 4 COND 300V 200 DEGC TEF <BLK-BRN-RED-ORN>



**Figure 3-70: VL500 Display Cable Assembly**

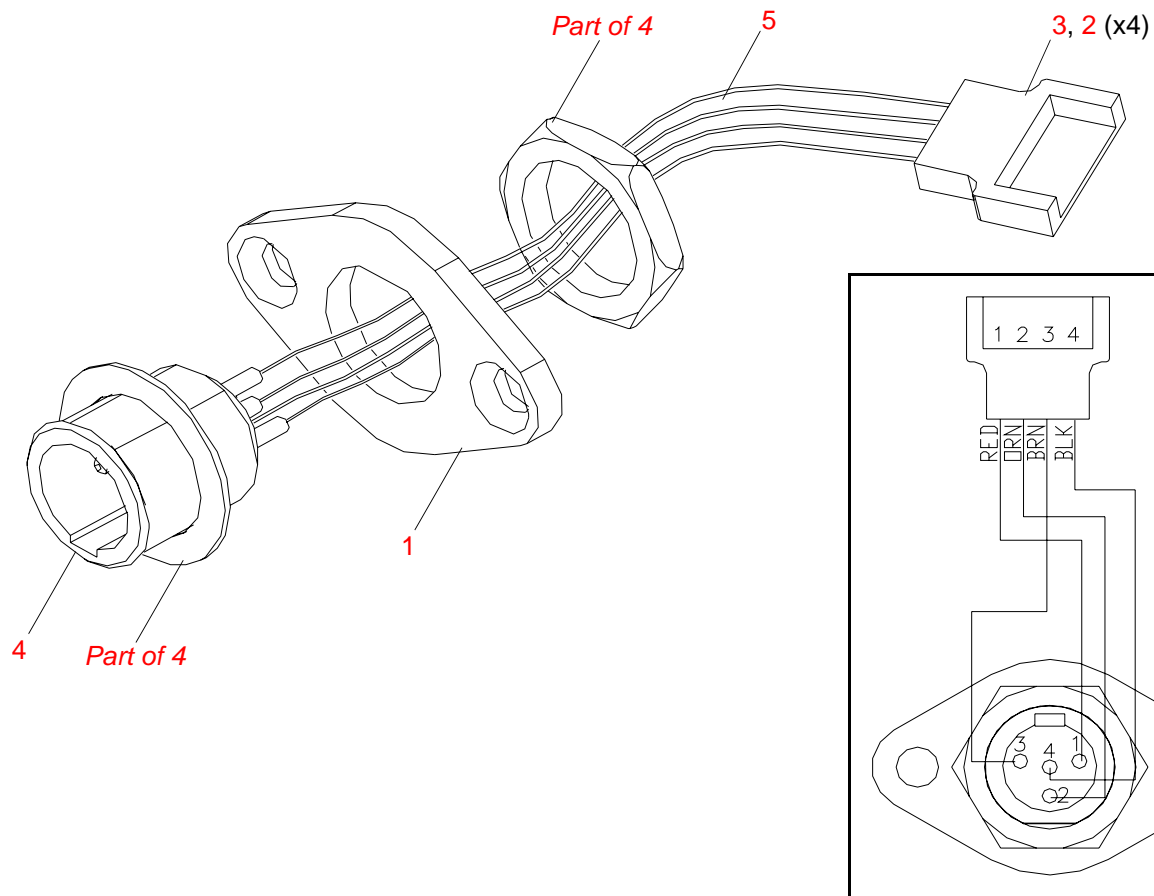


## VL500 Display (Remote) Cable Assembly

25.9685.0770 Rev B

Refer to [Figure 3-71](#).

No.	Item	Qty.	UM.	Description
1	10.9685.0536.01	1	EA	ADAPTER PLATE, MINI XLR, BLACK
	10.9685.0536.02	1	EA	ADAPTER PLATE, MINI XLR, WHITE
2	52.6694.0002	4	EA	CRIMP TERM, WIRE TO WIRE, MALE
3	52.6696.0003	1	EA	PLUG, WIRE TO WIRE, 4-POS
4	53.6501.0002	1	EA	CONN, MINI XLR, 4-PIN, PANEL MOUNT
5	73.2326.0123	0.25	FT	WIRE, 26 AWG 4-COND 300V 200DEGC (BLK-BRN-RED-ORN) UL1180



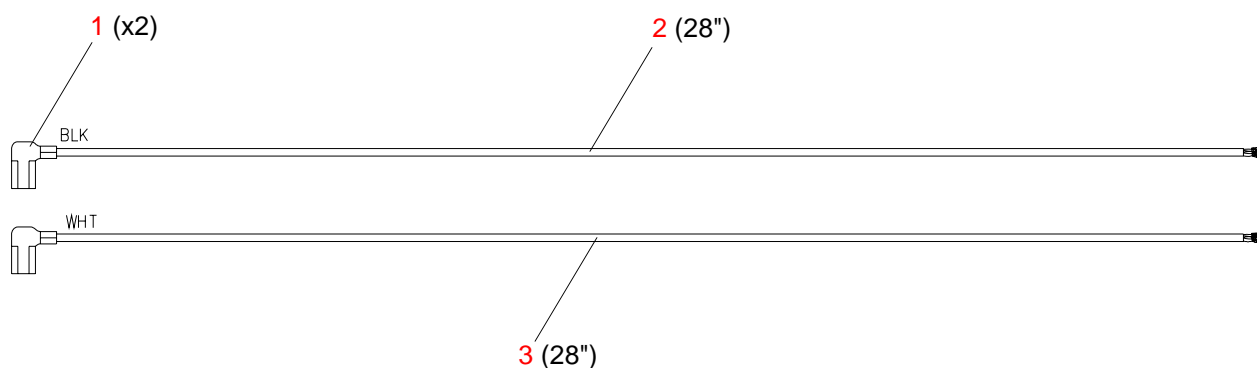
**Figure 3-71: VL500 Display (Remote) Cable Assembly**

## Yoke Lamp Cable Assembly (VL500/VL500D)

25.9685.0771 Rev C

Refer to [Figure 3-72](#).

No.	Item	Qty.	UM.	Description
1	52.8244.0001	2	EA	RECEPT, FASTON FLAG, 0.250" 16-14 AWG (REEL)
2	73.6014.0012	2.33	FT	WIRE, 14 AWG 600V 200 DEGC FEP BLK STRAND 168/36 0.104
3	73.6014.0013	2.33	FT	WIRE, 14 AWG 600V 200 DEGC FEP WHT STRAND 168/36 0.104



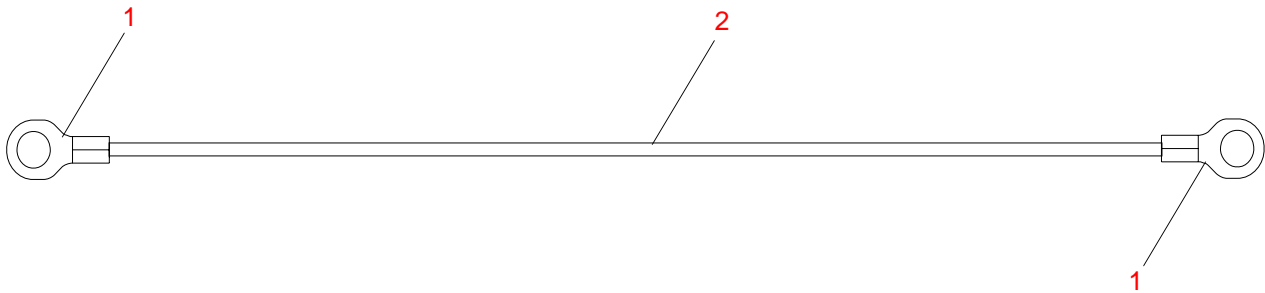
**Figure 3-72: Yoke Lamp Cable Assembly (VL500/VL500D)**

## VL500 Yoke Ground Cable Assembly

25.9685.0772 Rev C

Refer to [Figure 3-73](#).

No.	Item	Qty.	UM.	Description
1	52.8231.0005	2	EA	TERM, RING #6 16-14 AWG REEL PIDG
2	73.6014.0011	2.0	FT	WIRE, 14 AWG 600V 200 DEGC FEP GRN STRAND 168/36, 0.104 DIA



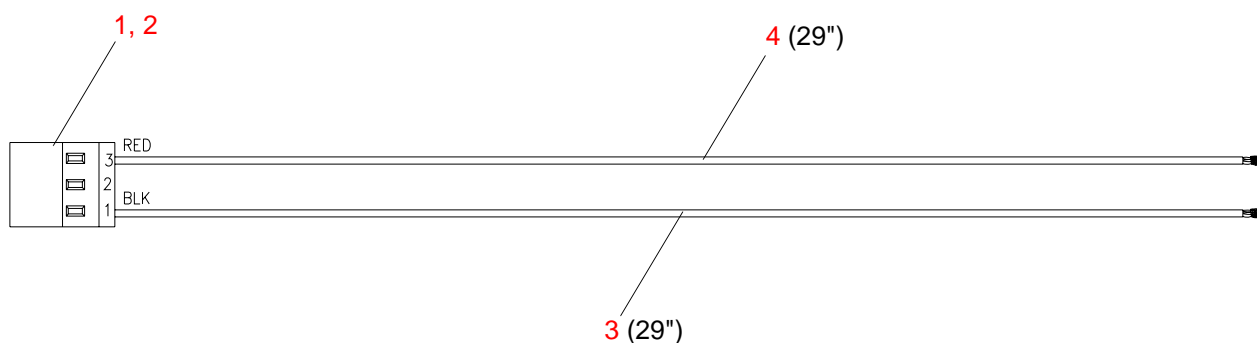
**Figure 3-73: Yoke Ground Cable Assembly**

## LVS AC Cable Assembly (VL500/VL500D/VL500A)

25.9685.0773 Rev C

Refer to [Figure 3-74](#).

No.	Item	Qty.	UM.	Description
1	52.6264.0004	1	EA	CONN HOUSING, 3 POS SL156 W/ RAMP NO TABS
2	52.8317.0002	2	EA	CONTACT, SL156 24-18 AWG
3	73.7137.0011	2.42	FT	WIRE, 20 AWG 600V 200 DEGC FEP BLK STRAND 105/40, 0.06 DIA
4	73.7137.0012	2.42	FT	WIRE, 20 AWG 600V 200 DEGC FEP RED STRAND 105/40, 0.06 DIA



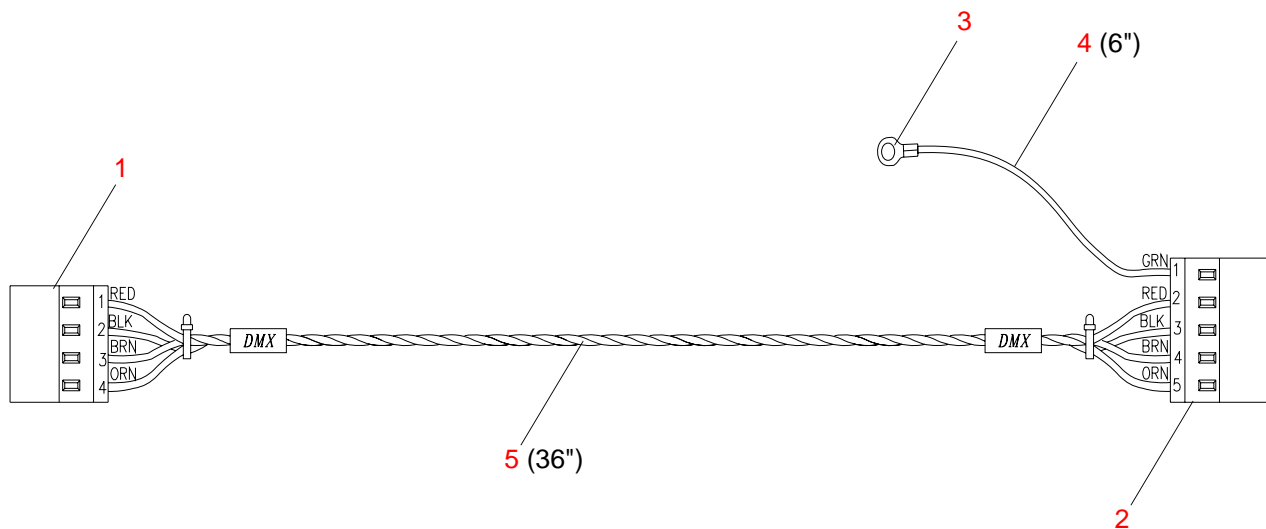
**Figure 3-74: LVS AC Cable Assembly (VL500/VL500D/VL500A)**

## VL500 Yoke DMX Communication Cable Assembly

25.9685.0774 Rev E

Refer to [Figure 3-75](#).

No.	Item	Qty.	UM.	Description
1	52.6234.0001	1	EA	CONN HOUSING, 4 PIN MTA CLOSED END BLUE
2	52.6270.0002	1	EA	CONN HOUSING, 5 PIN MTA CLOSED END BLUE
3	52.8311.0001	1	EA	TERM., RING #6 26-22 AWG NON-INS TAPE
4	73.2326.0123	3.0	FT	WIRE, 26 AWG 4-COND 300V 200DEGC (BLK-BRN-RED-ORN)
5	73.3526.0005	0.5	FT	WIRE, 26 AWG 300V 105 DEGC PVC GRN UL1569



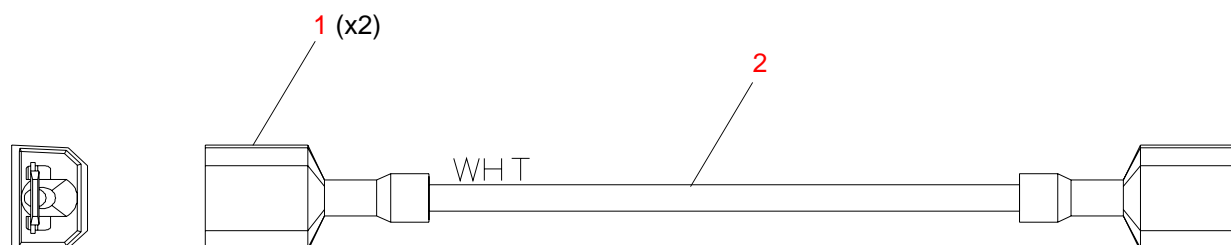
**Figure 3-75: VL500 Yoke DMX Communication Cable Assembly**

## VL500 Yoke Lamp Jumper Cable Assembly

25.9685.0776 Rev A

Refer to [Figure 3-76](#).

No.	Item	Qty.	UM.	Description
1	52.8348.0001	2	EA	TAB, ULTRA-FAST 1/4" 16-14 AWG INSULATED (LOOSE)
2	-	0.13	FT	WIRE, 14 AWG 200DEGC STRAND TEF WHT



**Figure 3-76: VL500 Yoke Lamp Jumper Cable Assembly**

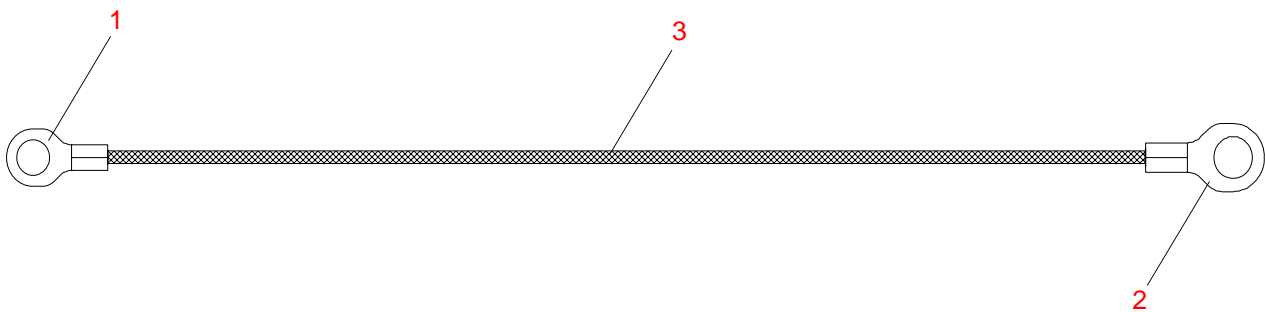
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## VL500 Backcap Ground Cable Assembly

25.9685.0777 Rev A

Refer to [Figure 3-77](#).

No.	Item	Qty.	UM.	Description
1	52.8329.0001	1	EA	TERM, RING #6 RED 22-16 AWG NON-INSUL
2	52.8329.0003	1	EA	TERM, RING #8 RED 22-16 AWG NON-INSUL
3	73.7130.0002	1.17	FT	WIRE, 7/64" TUBULAR BRAID SILVER PLATED



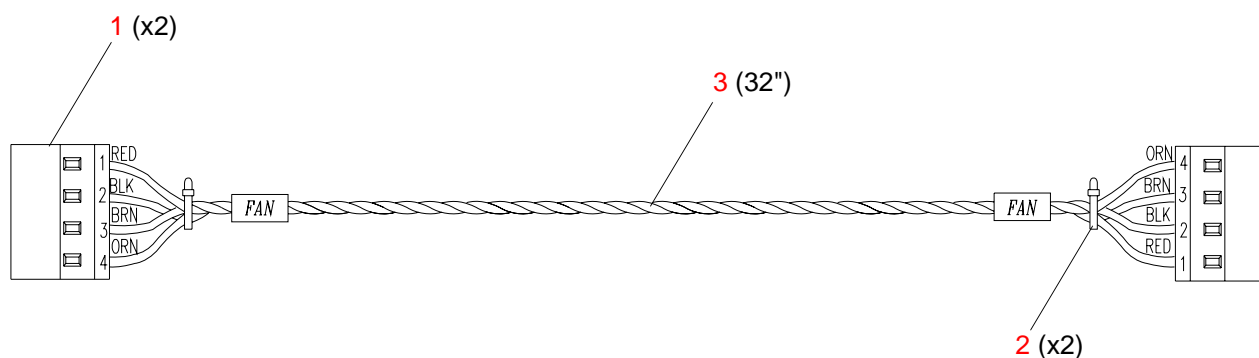
**Figure 3-77: VL500 Backcap Ground Cable Assembly**

## LVS Fan Cable Assembly (VL500/VL500D/VL500A)

25.9685.0778 Rev A

Refer to [Figure 3-78](#).

No.	Item	Qty.	UM.	Description
1	52.6234.0001	2	EA	CONN HOUSING, 4 PIN MTA CLOSED END BLUE
2	55.2186.0001	2	EA	CABLE TIE, 0.10" X 4" SMALL
3	73.2326.0123	2.67	FT	WIRE, 26 AWG 4 COND 300V 200 DEGC TEF <BLK-BRN-RED-ORN> UL1180



**Figure 3-78: LVS Fan Cable Assembly (VL500/VL500D/VL500A)**

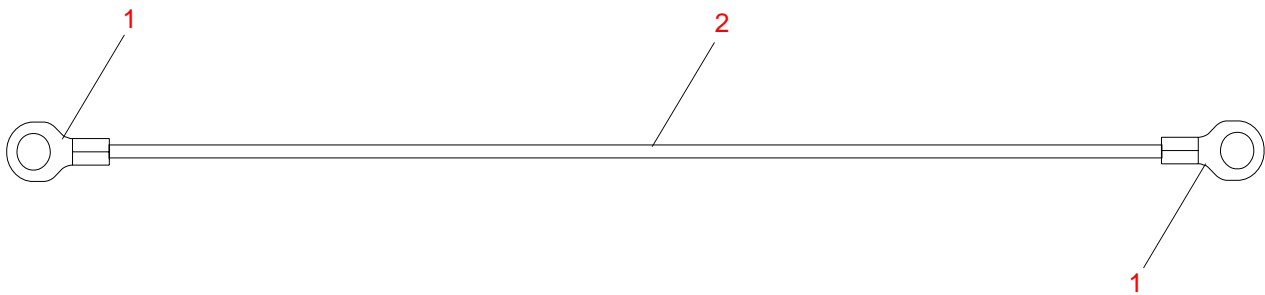


## VL500 MCB Yoke Ground Cable Assembly

25.9685.0782 Rev 0

Refer to [Figure 3-79](#).

No.	Item	Qty.	UM.	Description
1	52.8231.0005	2	EA	TERM, RING #6 16-14 AWG REEL PIDG
2	73.6014.0011	2.5	FT	WIRE, 14 AWG 600V 200 DEGC FEP GRN STRAND 168/36, 0.104 DIA



**Figure 3-79: VL500 MCB Yoke Ground Cable Assembly**

## Arc Yoke Lamp Cable Assembly (VL500A)

25.9685.0783 Rev B

Refer to [Figure 3-80](#).

No.	Item	Qty.	UM.	Description
1	52.8244.0001	2	EA	RECEPT, FASTON FLAG, 0.250" 16-14 AWG (REEL)
2	52.8329.0001	2	EA	TERM RING, #6 22-16 AWG NON-INS
3	55.2183.0001	0.33	FT	HEATSHRINK, 1/2", BLACK
4	73.3520.0005	0.75	FT	WIRE, 20 AWG 300V 105 DEGC PVC GRN UL1015
5	73.6014.0012	2.33	FT	WIRE, 14 AWG 600V 200 DEGC FEP BLK STRAND 168/36 0.104 DIA
6	73.6014.0013	2.33	FT	WIRE, 14 AWG 600V 200 DEGC FEP WHT STRAND 168/36 0.104 DIA
7	73.7130.0006	2.17	FT	WIRE, 5/64" TUBULAR BRAID TINNED COPPER

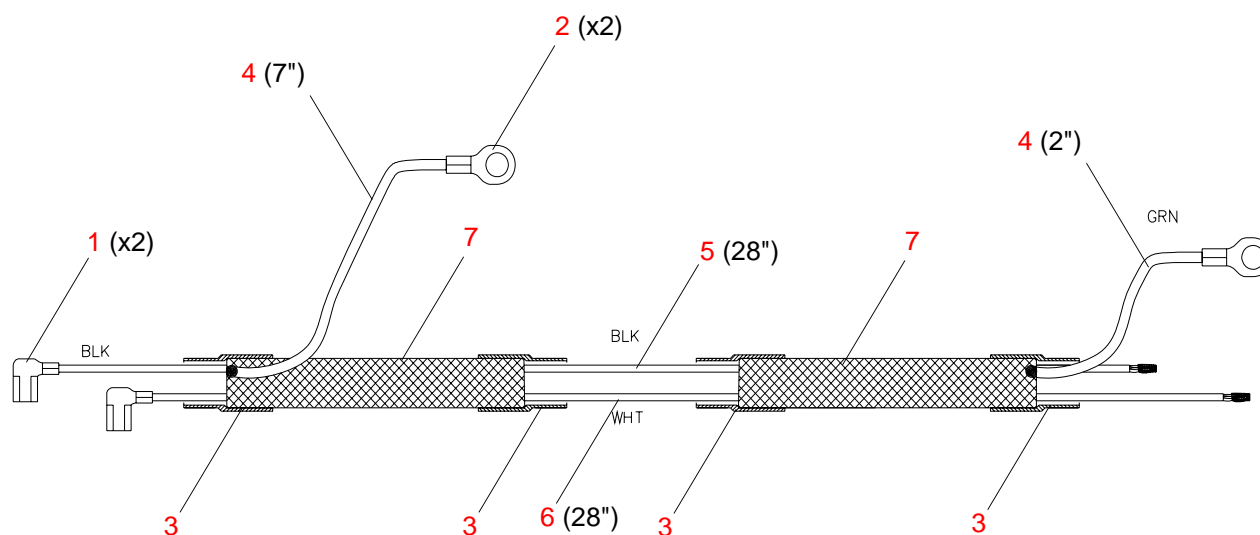


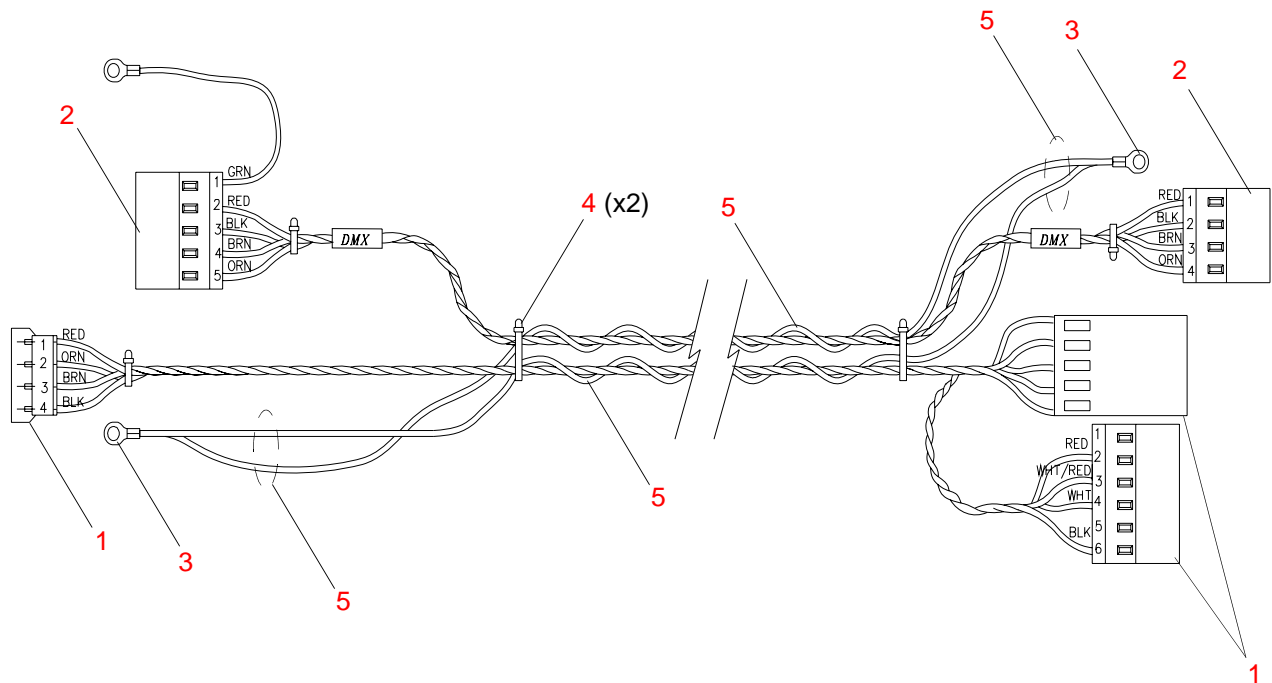
Figure 3-80: Arc Yoke Lamp Cable Assembly (VL500A)

## Shielded Display/DMX Communication Cable Assembly (VL500A)

25.9685.0784 Rev C

Refer to [Figure 3-81](#).

No.	Item	Qty.	UM.	Description
1	<a href="#">25.9685.0769</a>	1	EA	CABLE ASSY, DISPLAY
2	<a href="#">25.9685.0774</a>	1	EA	CABLE ASSY, YOKE DMX
3	52.8311.0004	2	EA	TERM, RING #6 16-14 AWG NON-INS (BOX)
4	55.2186.0001	2	EA	CABLE TIE, 0.10" X 4" SMALL
5	73.7130.0006	8.33	FT	WIRE, 5/64" TUBULAR BRAID TINNED COPPER



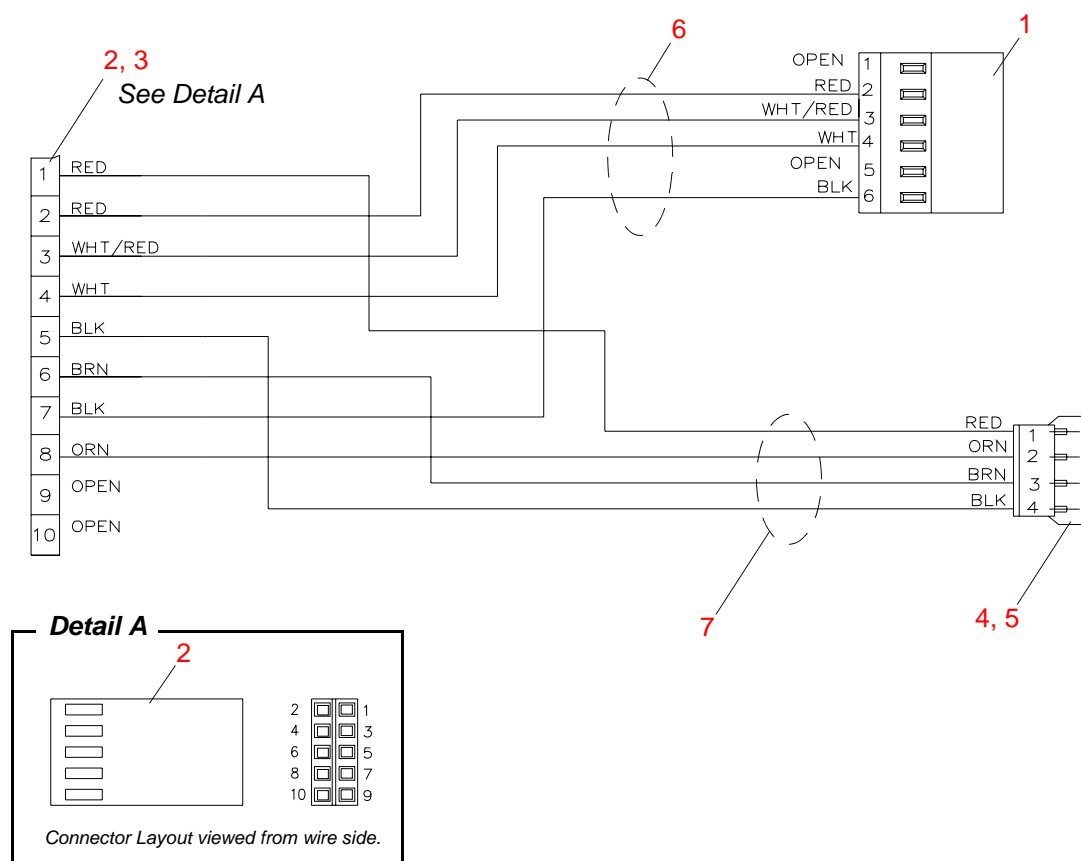
**Figure 3-81: Shielded Display/DMX Communication Cable Assembly (VL500A)**

## VL500 80V Display Cable Assembly

25.9685.0785 Rev 0

Refer to [Figure 3-82](#).

No.	Item	Qty.	UM.	Description
1	52.6363.0001	1	EA	CONN HOUSING, 6 PIN MTA CLOSED END BLUE
2	52.6264.0005	1	EA	CONN HOUSING MOD4 CRIMP SNAP-IN 0.1 X 0.1
3	52.6240.0003	9	EA	CONTACT FEMALE MOD4 CRIMP SNAP-IN
4	52.6696.0001	1	EA	RECEPT, WIRE TO WIRE 4 POS 2 MM PITCH 28-24 AWG
5	52.6694.0001	4	EA	CRIMP TERMINAL WIRE TO WIRE FEMALE 2MM 28-24 AWG
6	73.5126.0130	0.42	FT	WIRE, 26 AWG 4 COND 300V 200 DEGC TEF <BLK-WHT-RED-WHT/RED>
7	73.2326.0123	3.25	FT	WIRE, 4 COND 300V 200 DEGC TEF <BLK-BRN-RED-ORN>



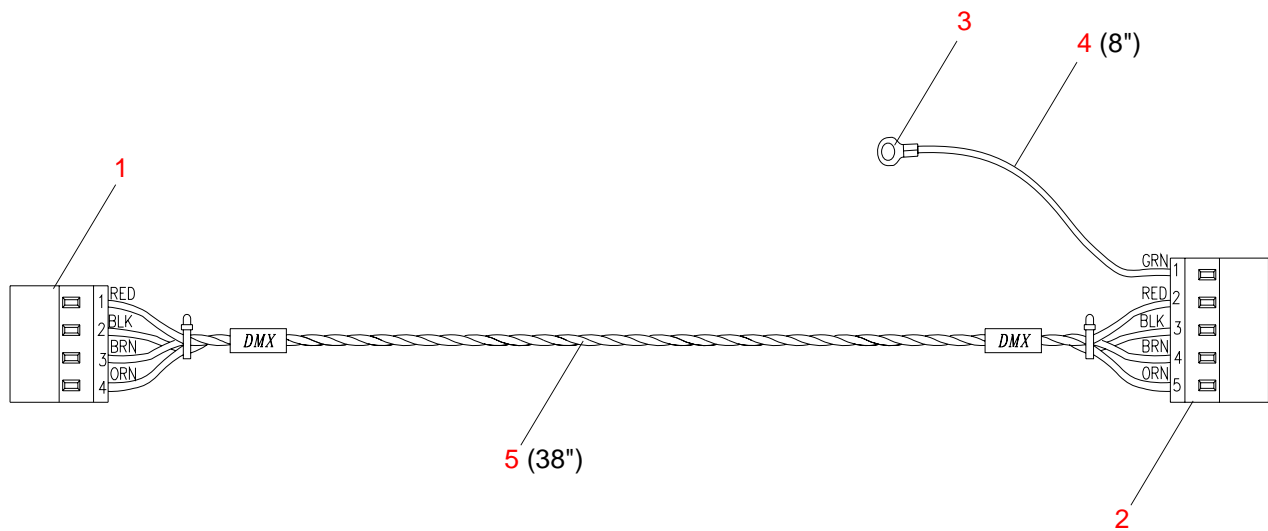
**Figure 3-82: VL500 80V Display Cable Assembly**

## VL500 80V Yoke DMX Communication Cable Assembly

25.9685.0786 Rev A

Refer to [Figure 3-83](#).

No.	Item	Qty.	UM.	Description
1	52.6234.0001	1	EA	CONN HOUSING, 4 PIN MTA CLOSED END BLUE
2	52.6270.0002	1	EA	CONN HOUSING, 5 PIN MTA CLOSED END BLUE
3	52.8311.0001	1	EA	TERM., RING #6 26-22 AWG NON-INS TAPE
4	73.2326.0123	3.17	FT	WIRE, 26 AWG 4-COND 300V 200DEGC (BLK-BRN-RED-ORN) UL1180
5	73.3526.0005	0.67	FT	WIRE, 26 AWG 300V 105 DEGC PVC GRN UL1569



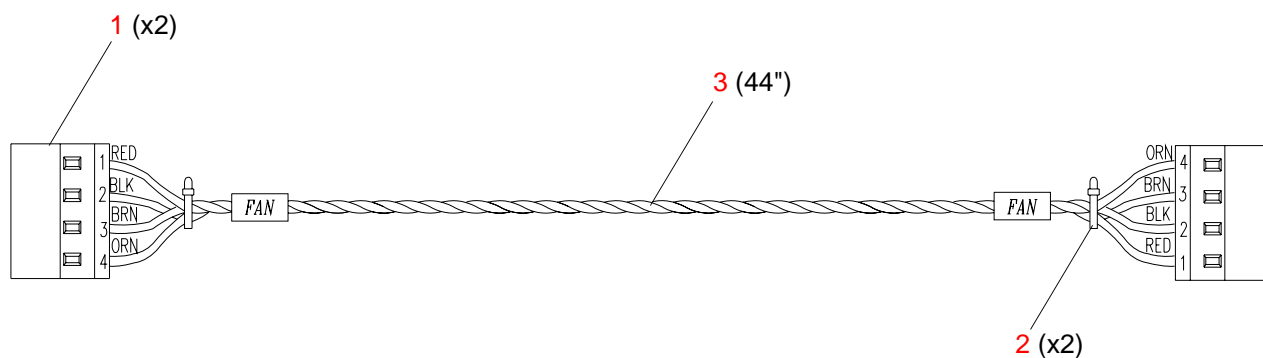
**Figure 3-83: VL500 80V Yoke DMX Communication Cable Assembly**

## VL500 80V LVS Fan Cable Assembly

25.9685.0787 Rev 0

Refer to [Figure 3-84](#).

No.	Item	Qty.	UM.	Description
1	52.6234.0001	2	EA	CONN HOUSING, 4 PIN MTA CLOSED END BLUE
2	55.2186.0001	2	EA	CABLE TIE, 0.10" X 4" SMALL
3	73.2326.0123	3.67	FT	WIRE, 26 AWG 4 COND 300V 200 DEGC TEF <BLK-BRN-RED-ORN> UL1180



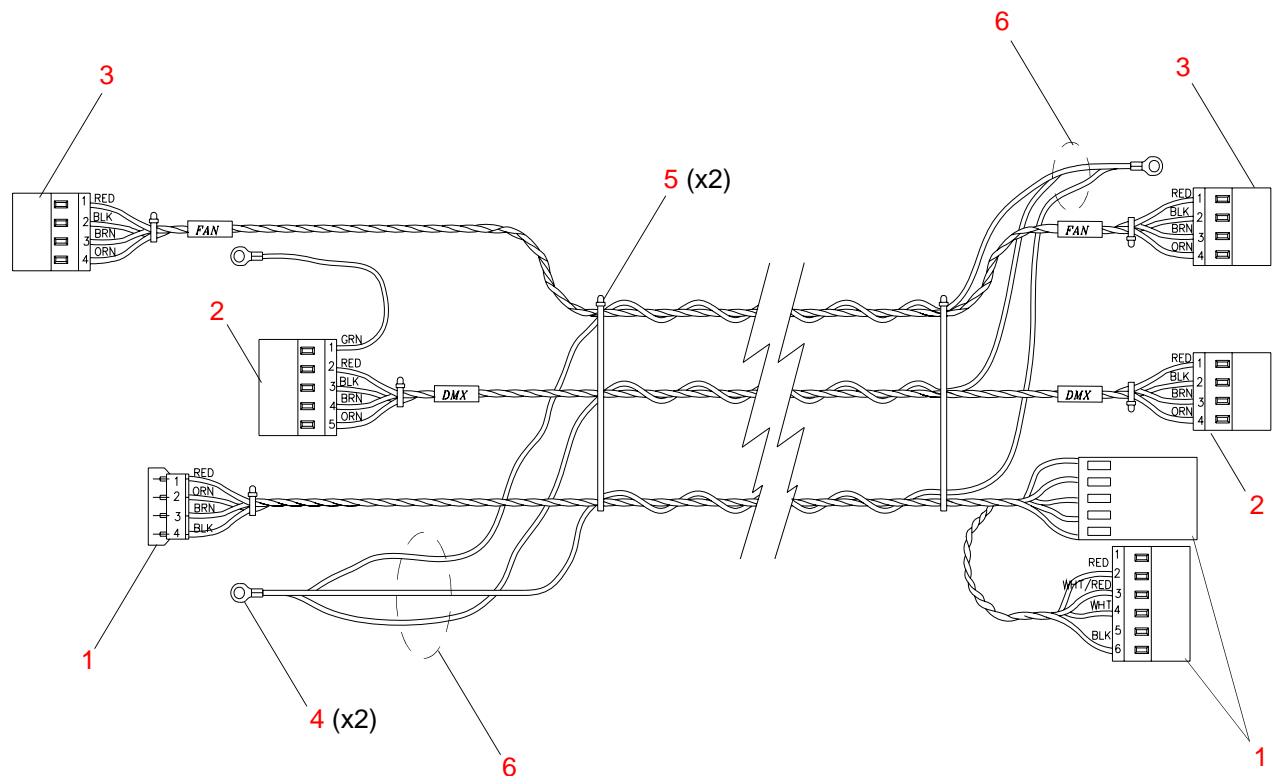
**Figure 3-84: VL500 80V LVS Fan Cable Assembly**

## 80V Shielded Display/DMX Communication Cable Assembly (VL500 80V)

25.9685.0788 Rev A

Refer to [Figure 3-85](#).

No.	Item	Qty.	UM.	Description
1	<a href="#">25.9685.0785</a>	1	EA	CABLE ASSY, DISPLAY, 80V VL500
2	<a href="#">25.9685.0786</a>	1	EA	CABLE ASSY, YOKE DMX COMM, 80V VL500
3	<a href="#">25.9685.0787</a>	1	EA	CABLE ASSY, LVS FAN, 80V VL500
4	52.8311.0004	2	EA	TERM, RING #6 16-14 AWG NON-INS (BOX)
5	55.2186.0001	2	EA	CABLE TIE, 0.10" X 4" SMALL
6	73.7130.0006	8.33	FT	WIRE, 5/64" TUBULAR BRAID TINNED COPPER



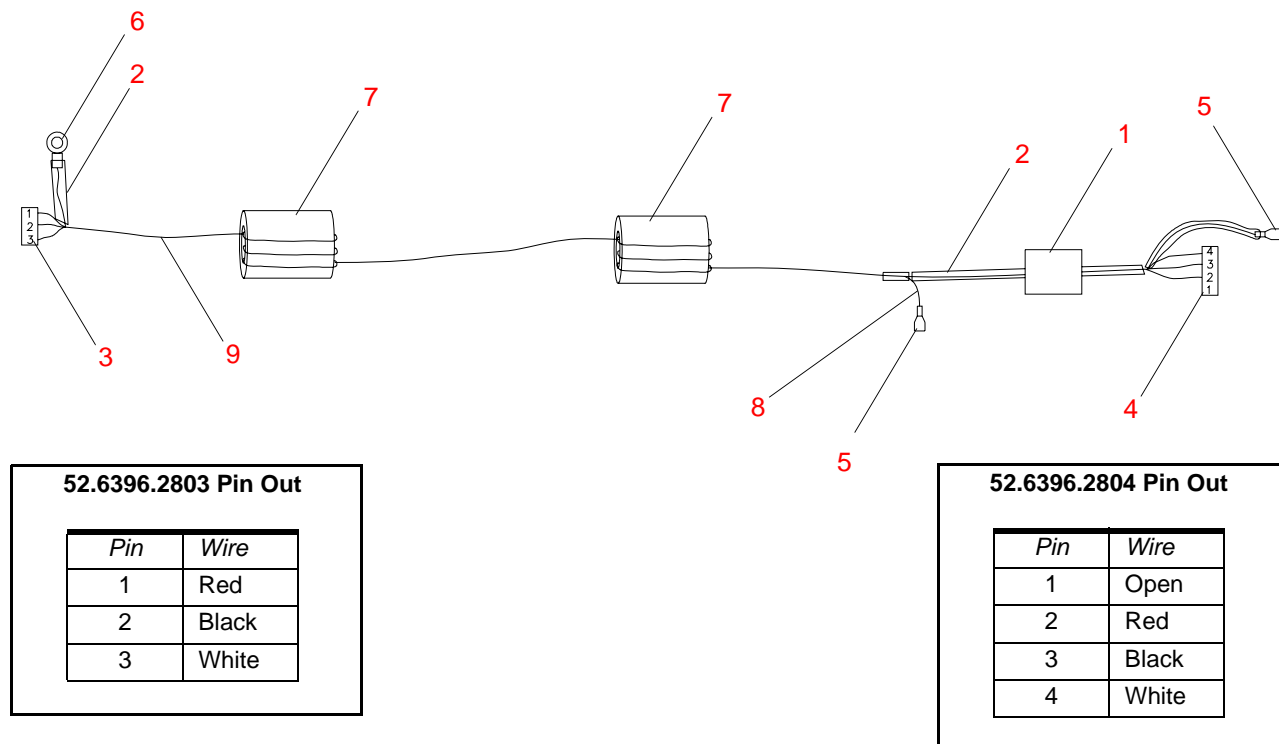
**Figure 3-85: 80V Shielded Display/DMX Communication Cable Assembly (VL500 80V)**

## 80V Dimmer Communication Cable Assembly (VL500 80V)

25.9685.1794 Rev 0

Refer to [Figure 3-86](#).

No.	Item	Qty.	UM.	Description
1	28A2432-0A2	1	EA	SPLIT CORE FERRITE 160 OHMS 100MHZ 8.2 MM ID
2	52-0274	18.5	IN	HEATSHRINK TUBE, 1/4", BLACK
3	52.6396.2603	1	EA	RECEPT, 3 POS MTA 100 W/POL TAB BLUE CLOSED END
4	52.6396.2604	1	EA	RECEPT, 4 POS MTA 100 W/POL TAB BLUE CLOSED END
5	52.8271.0004	2	EA	RECEPT, FASTON, 0.250" 22-18 AWG
6	52.8329.0001	1	EA	TERM., RING, #6 22-16 AWG NON INSULATED
7	68.4541.0003	2	EA	FERRITE, 25.91 X 12.83 X 28.58 MM, CYLINDRICAL CONE
8	71-0632	0.75	IN	WIRE, 18 AWG GRN UL1007 STRANDED
9	73.7140.0003	1	EA	CABLE, 3 COND, BRAID SHIELD, 26 AWG, TFE INS, 200 DEGC



**Figure 3-86: 80V Dimmer Communication Cable Assembly (VL500 80V)**



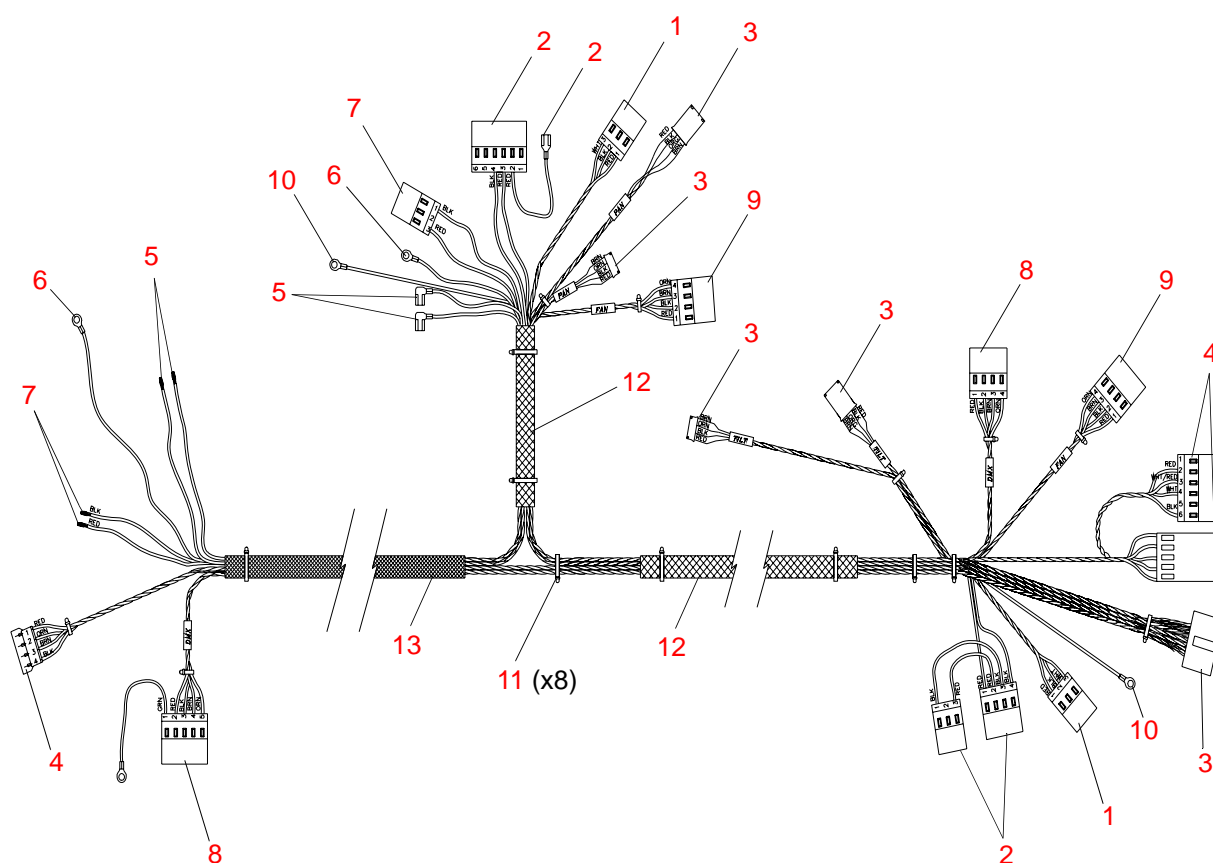
## VL500 Main Harness Cable Assembly

25.9685.0790 Rev J (VL500 and VL500D)

Refer to [Figure 3-87](#).

No.	Item	Qty.	UM.	Description
1	<a href="#">25.9685.0750</a>	1	EA	CABLE ASSY, DIMMER COMM
2	<a href="#">25.9685.0752</a>	1	EA	CABLE ASSY, 24V POWER
3	<a href="#">25.9685.0758</a>	1	EA	CABLE ASSY, PAN/TILT
4	<a href="#">25.9685.0769</a>	1	EA	CABLE ASSY, DISPLAY CABLE
5	<a href="#">25.9685.0771</a>	1	EA	CABLE ASSY, YOKE LAMP WIRES
6	<a href="#">25.9685.0772</a>	1	EA	CABLE ASSY, YOKE GROUND
7	<a href="#">25.9685.0773</a>	1	EA	CABLE ASSY, LVS AC
8	<a href="#">25.9685.0774</a>	1	EA	CABLE ASSY, YOKE DMX COMM
9	<a href="#">25.9685.0778</a>	1	EA	CABLE ASSY, LVS FAN
10	<a href="#">25.9685.0782</a>	1	EA	CABLE ASSY, MCB YOKE GROUND
11	55.2186.0001	8	EA	CABLE TIE, 0.10"X4" SMALL
12	55.6699.0003	1.19	FT	SLEEVING, 1/2" NOM DIA WOVEN POLY
13	55.6699.0010	0.92	FT	SLEEVING, 5/16" NOM DIA WOVEN POLY ROUNDTIT 2000

## VL500 Main Harness Cable Assembly (continued)



**Figure 3-87: VL500 Main Harness Cable Assembly (VL500 and VL500D)**

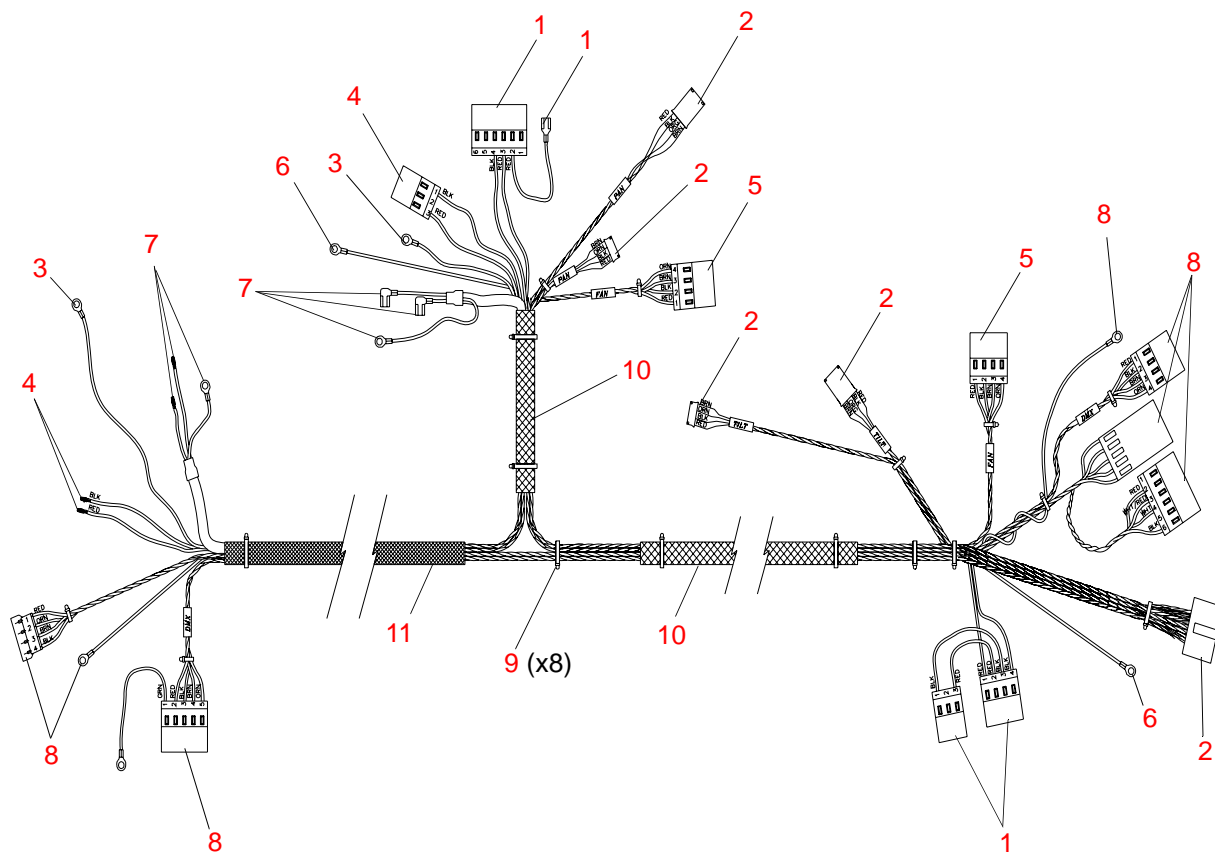
## VL500 Arc Main Harness Cable Assembly

25.9685.0791 Rev C (VL500A)

Refer to [Figure 3-88](#).

No.	Item	Qty.	UM.	Description
1	<a href="#">25.9685.0752</a>	1	EA	CABLE ASSY, 24V POWER
2	<a href="#">25.9685.0758</a>	1	EA	CABLE ASSY, PAN/TILT
3	<a href="#">25.9685.0772</a>	1	EA	CABLE ASSY, YOKE GROUND
4	<a href="#">25.9685.0773</a>	1	EA	CABLE ASSY, LVS AC
5	<a href="#">25.9685.0778</a>	1	EA	CABLE ASSY, LVS FAN
6	<a href="#">25.9685.0782</a>	1	EA	CABLE ASSY, MCB YOKE GROUND
7	<a href="#">25.9685.0783</a>	1	EA	CABLE ASSY, ARC YOKE LAMP WIRES
8	<a href="#">25.9685.0784</a>	1	EA	CABLE ASSY, SHIELDED DISPLAY/DMX COMM
9	55.2186.0001	8	EA	CABLE TIE, 0.10"X4" SMALL
10	55.6699.0003	1.19	FT	SLEEVING, 1/2" NOM DIA WOVEN POLY
11	55.6699.0010	0.92	FT	SLEEVING, 5/16" NOM DIA WOVEN POLY ROUNDT 2000

## VL500 Arc Main Harness Cable Assembly (continued)



**Figure 3-88: VL500 Arc Main Harness Cable Assembly (VL500A)**

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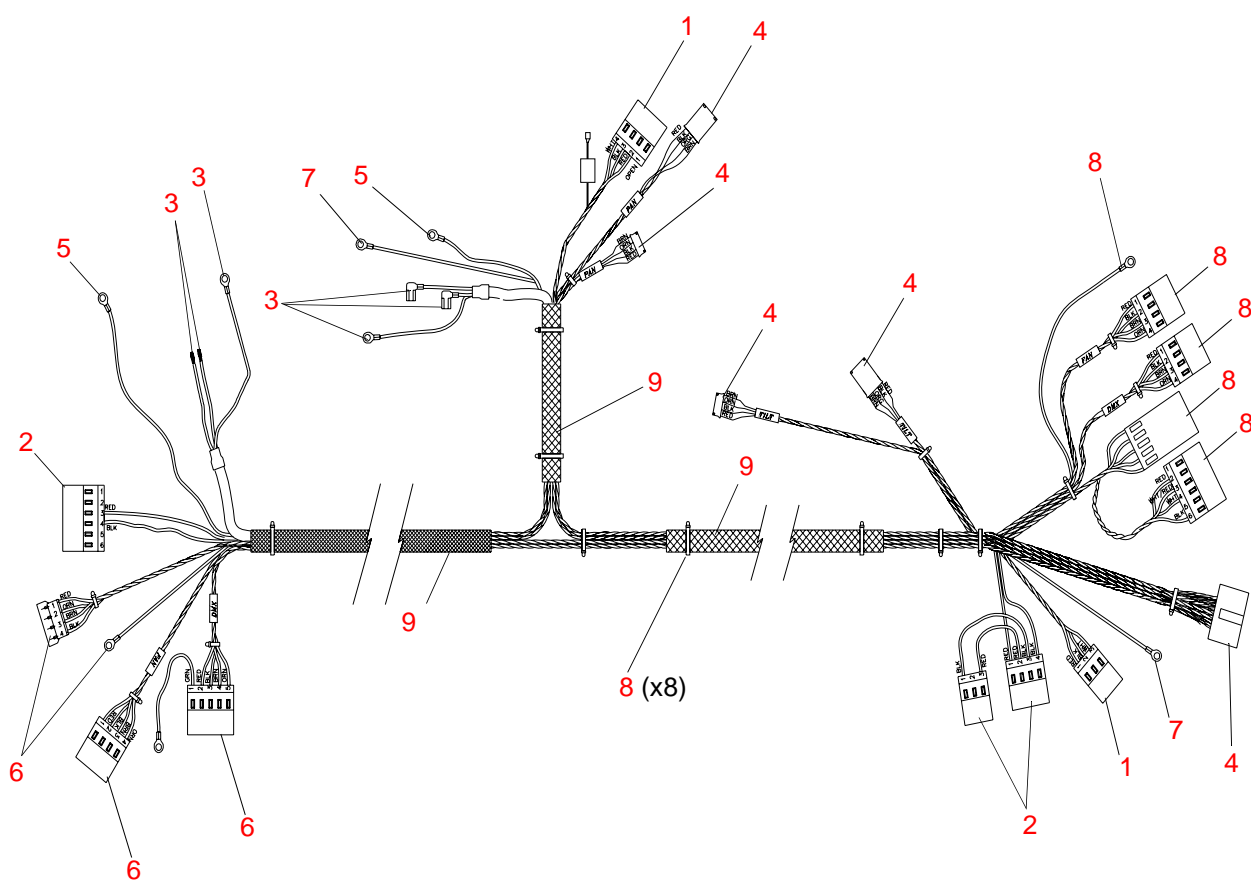
## VL500 80V Main Harness Cable Assembly

25.9685.2792 Rev A (VL500 80V)

Refer to [Figure 3-89](#).

No.	Item	Qty.	UM.	Description
1	<a href="#">25.9685.1794</a>	1	EA	CABLE ASSY, 80V DIMMER COMM, VL500 80V
2	<a href="#">25.9685.0744</a>	1	EA	CABLE ASSY, 24V POWER, VL500 80V
3	<a href="#">25.9685.0745</a>	1	EA	CABLE ASSY, 80V YOKE LAMP WIRES
4	<a href="#">25.9685.0758</a>	1	EA	CABLE ASSY, PAN/TILT
5	<a href="#">25.9685.0772</a>	1	EA	CABLE ASSY, YOKE GROUND
6	<a href="#">25.9685.0788</a>	1	EA	CABLE ASSY, SHIELDED DISPLAY/DMX COMM, VL500 80V
7	<a href="#">25.9685.0782</a>	1	EA	CABLE ASSY, MCB YOKE GROUND
8	55.2186.0001	8	EA	CABLE TIE, 0.10"X4" SMALL
9	55.6699.0010	2.10	FT	SLEEVING, 5/16" NOM DIA WOVEN POLY ROUNDIT 2000

## VL500 80V Main Harness Cable Assembly (continued)



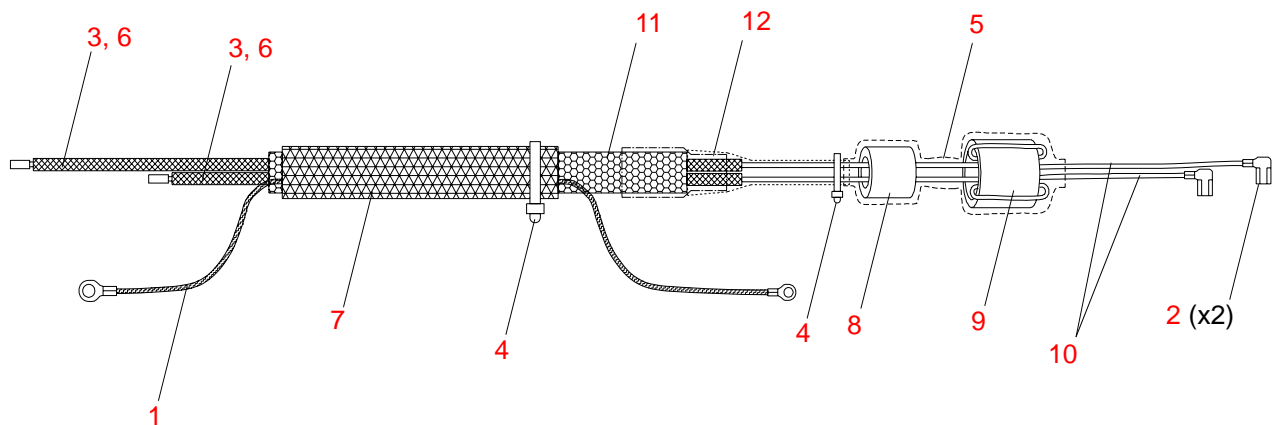
**Figure 3-89: VL500 80V Main Harness Cable Assembly (VL500 80V)**

## VL500 80V Lamp Wire Harness

25.9685.0793 Rev B

Refer to [Figure 3-90](#).

No.	Item	Qty.	UM.	Description
1	<a href="#">25.9685.0777</a>	1	EA	CABLE ASSY, BACK CAP GROUND, VL500
2	52.8244.0001	2	EA	FASTON RECEPT FLAG, 0.250 16-14 AWG INSULATED (REEL)
3	52.8298.1140	2	EA	FERRULE, WIRE 1 X 14AWG, NON-INSUL
4	55.2186.0002	2	EA	CABLE TIE, 3-3/4" LG 0.9WD TEFZEL
5	55.2199.1000	0.38	FT	HEATSHRINK, 1" BLACK
6	55.2260.0133	2.42	FT	SLEEVING, FIBERGLASS 0.133" ID
7	55.6699.0010	1.25	FT	SLEEVING, 5/16" NOM. DIA. WOVEN POLY, ROUNDTIT 2000
8	68.4541.0001	1	EA	FERRITE, 15 X 5.9 X 35MM, CYLINDRICAL CORE
9	68.4541.0002	1	EA	FERRITE, 18.67 X 10.16 X 28.58MM, CYLINDRICAL CORE
10	73.3517.0001	5.04	FT	WIRE, 14 AWG 5KV 200DEGC SILICON 7X24/36 STRAND
11	73.7130.0006	0.83	FT	WIRE, 5/64" TUBULAR BRAID TINNED COPPER
12	55.2183.0001	0.17	FT	HEATSHRINK, 1/2" BLACK



**Figure 3-90: VL500 80V Ignitor to Socket Cable Assembly**

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## Notes



# Arc Ballast Assembly

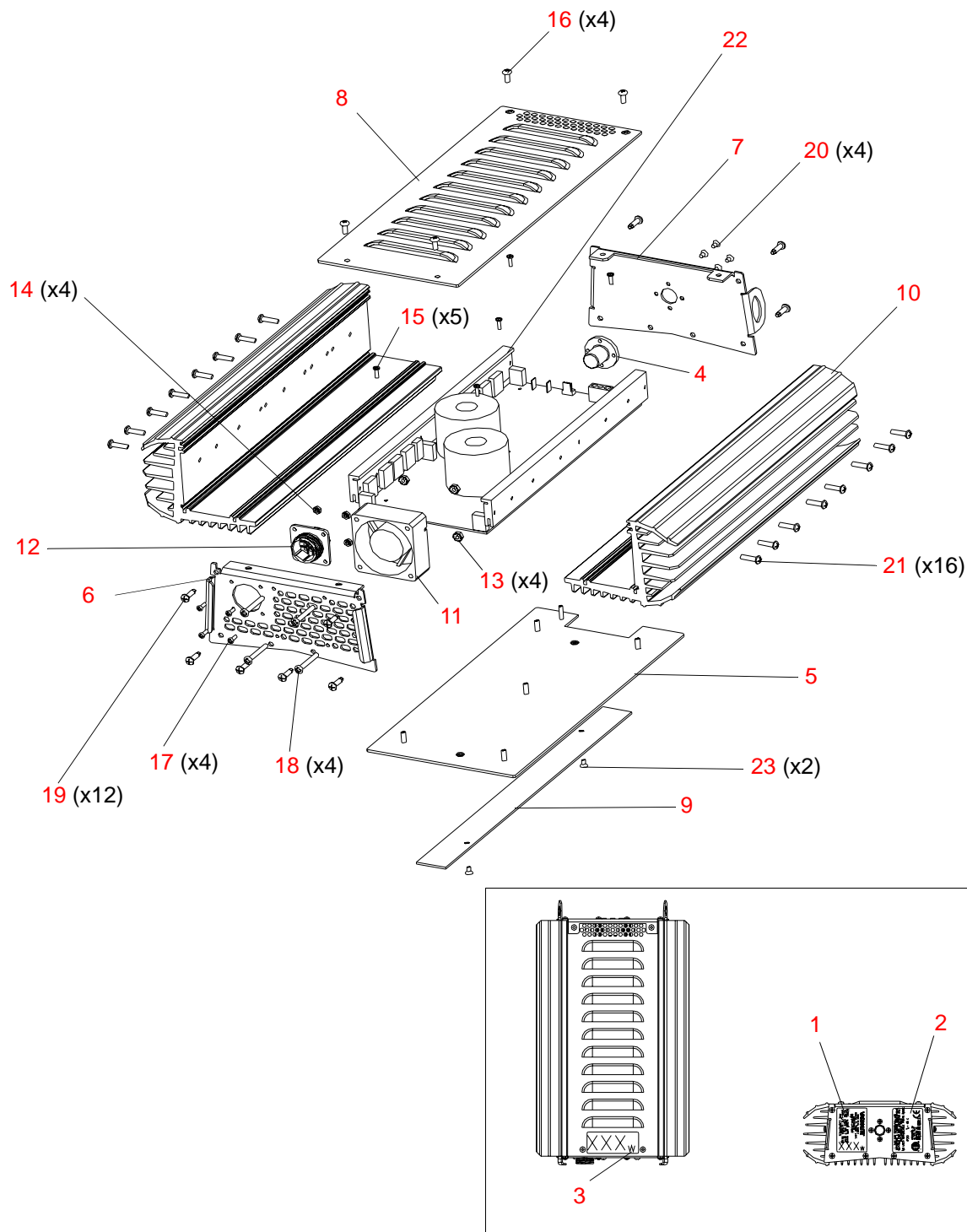
## VL500 Arc Ballast Assembly

21.9685.0802 Rev H

Refer to [Figure 3-91](#).

No.	Item	Qty.	UM.	Description
1	04.9685.0941	1	EA	LABEL, PRODUCT, VL500APS-700W
2	04.9685.0942	1	EA	LABEL, PRODUCT, VL500APS COMPLIANCE (BLK)
3	04.9685.0946	1	EA	LABEL, BALLAST WATTAGE, 700W
4	10.9669.0034	1	EA	PLATE, NUT
5	10.9685.0822	1	EA	MOUNT PLATE, BALLAST
6	10.9685.0823	1	EA	BOTTOM PLATE, BALLAST (BLK)
7	10.9685.0824	1	EA	TOP PLATE, BALLAST (BLK)
8	10.9685.0825	1	EA	COVER, BALLAST (BLK)
9	10.9685.0826	1	EA	PANEL, FILLER, BALLAST (BLK)
10	12.9685.0821	2	EA	HEATSINK, BALLAST, MACHINED (BLK)
11	23.9685.0827	1	EA	FAN ASSY, ARC BALLAST, 700W
12	<a href="#">25.9685.0807</a>	1	EA	CABLE ASSY, BALLAST I/O
13	53.2002.0001	4	EA	NUT, 6-32 KEPS, ZINC
14	53.2003.0001	4	EA	NUT, 4-40 KEP ZINC PLATED
15	53.6520.0001	5	EA	SCREW, 4-40X3/8" PPZ
16	53.6545.0001	4	EA	SCREW, 8-32X3/8" PPZ
17	53.6551.0001	4	EA	SCREW, 4-40X3/8" PPB
18	53.6571.0002	4	EA	SCREW, 6-32X1-1/4" LG PPB
19	53.6575.0021	12	EA	SCREW, 8-32X5/8" PPB TYPE-F
20	53.6607.0002	4	EA	SCREW, 6-32X1/4" PFB
21	53.6614.0001	16	EA	SCREW, 6-32X5/8" LG PPB
22	69.9685.0701	1	EA	BALLAST, 700W, SCHEIDERWERKS

## VL500 Arc Ballast Assembly (continued)



**Figure 3-91: VL500 Arc Ballast Assembly**

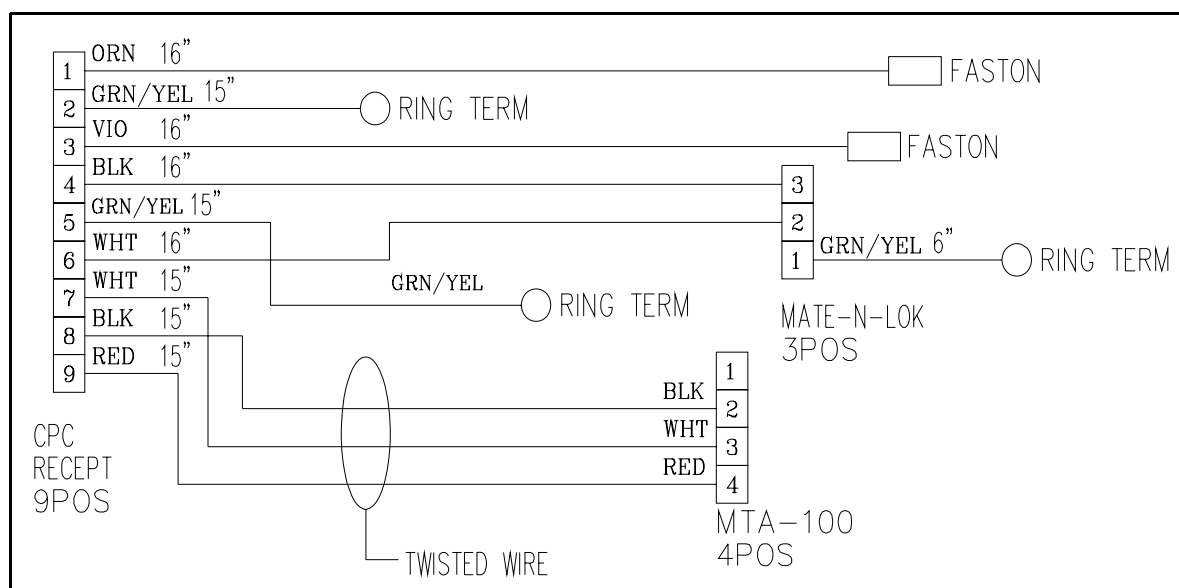
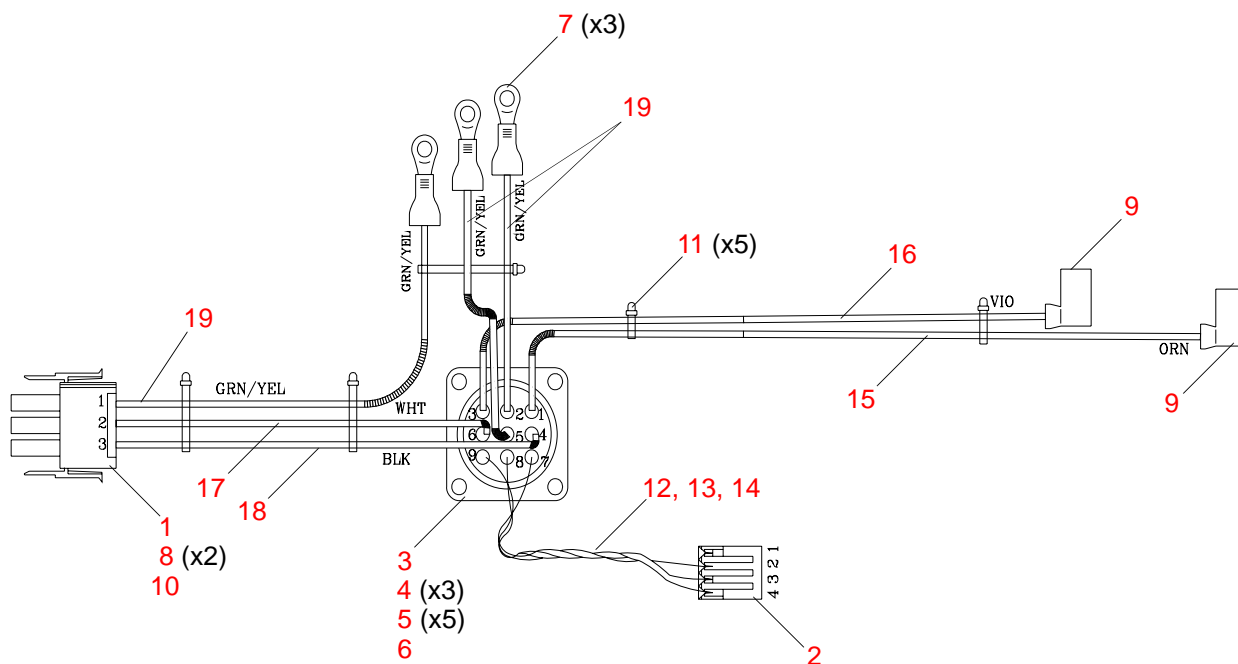
## Ballast I/O Cable Assembly

25.9685.0807 Rev A

Refer to [Figure 3-92](#).

No.	Item	Qty.	UM.	Description
1	52.6231.0001	1	EA	PLUG HOUSING, MNLOK PLUG 3-POS
2	52.6396.2904	1	EA	RECEPT, 4-POS MTA100 W/POL RED
3	52.6400.0111	1	EA	RECEPT, 17-9 STD SEX CPC 600V FLANGE
4	52.8201.0005	3	EA	PIN, GOLD 24-20AWG TYPE3+ REEL .040-.080 INS DIA
5	52.8202.0001	5	EA	PIN, GOLD 18-16AWG TYPE 3+ REEL .080-.100 INS DIA
6	52.8202.0011	1	EA	PIN, GND GOLD 18-16AWG TYPE 3+ REEL .080-.100 INS DIA
7	52.8231.0005	3	EA	TERM, RING #6 BLUE 16-14 AWG REEL PIDG
8	52.8257.0002	2	EA	PIN, PHOS BRZ 20-14AWG (REEL) MNLOK .060"- .130"INS DIA
9	52.8313.0001	2	EA	RCPT, FASTON 1/4" 18-14 AWG FLAG DBL CRP (REEL)
10	52.8314.0001	1	EA	PIN, GND 20-14AWG (REEL) MNLOK .060"- .130"INS DIA
11	55.2186.0001	5	EA	CABLE TIE, .10"WD 4.00"LG SMALL
12	73.3522.0002	1.25	FT	WIRE, 22AWG 300V 105C PVC RED UL1569
13	73.3522.0009	1.25	FT	WIRE, 22AWG 300V 105C PVC WHT UL1569
14	73.3522.0010	1.25	FT	WIRE, 22AWG 300V 105C PVC BLK UL1569
15	73.6016.0003	1.33	FT	WIRE, 16AWG 600V 105C PVC ORN UL1015
16	73.6016.0007	1.33	FT	WIRE, 16AWG 600V 105C PVC VIO UL1015
17	73.6016.0009	1.33	FT	WIRE, 16AWG 600V 105C PVC WHT UL1015
18	73.6016.0010	1.33	FT	WIRE, 16AWG 600V 105C PVC BLK UL1015
19	73.6016.0504	3.0	FT	WIRE, 16AWG 600V 105C PVC GRN/YEL UL1015

## Ballast I/O Cable Assembly (continued)



**Figure 3-92: Ballast I/O Cable Assembly**

## *APPENDIX A.*

# Technical Bulletins and Notices

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### VL500™ Wash Luminaire Technical Bulletins and Notices

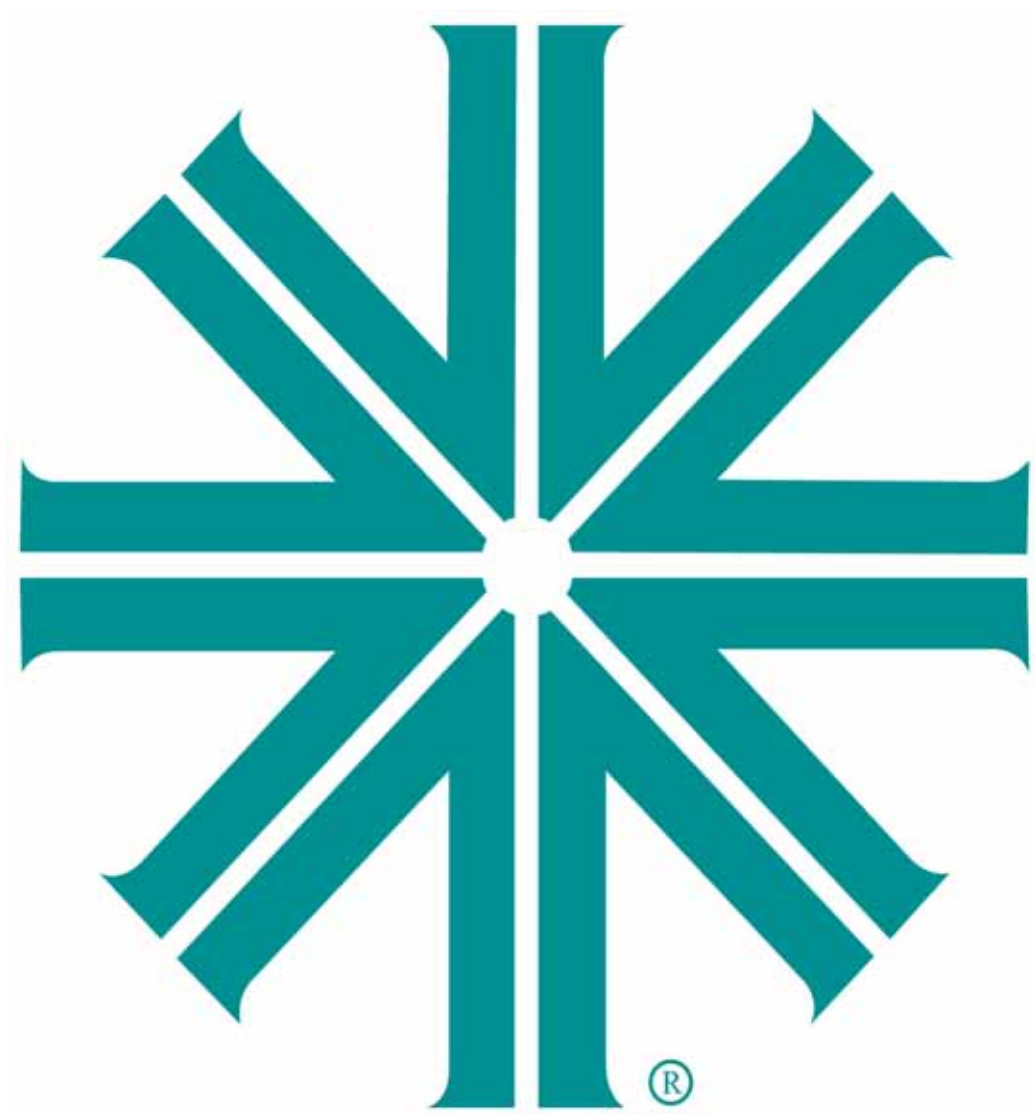
The following table identifies the current technical bulletins and notices associated with the VL500™ wash luminaire. If applicable, these improvements have been incorporated into this manual.

Technical Bulletin or Notice	Description
S5K-001	Series 500™ Yoke Leg/Cross Member Screw Torquing Procedure
S5K-002	<i>This technical bulletin was rescinded</i>
S5K-003	Series 500™ Counterweight Replacement Procedure
S5K-004	Series 500™ 80V Step Washer Replacement Procedure
S5K-005	Series 500™ 80V Pan Motor Compression Spring Replacement
S5K-006	Series 500™ VL500D™ Dimmer Module Modification Procedure
TN-248	Specified and Approved Lamps for use in VARI*LITE Luminaires
TN-231	Recommended Spare Parts Kits for VARI*LITE Luminaires
TN-229	Powering VARI*LITE Luminaires From Dimmer Circuits - NOT RECOMMENDED

Technical Bulletins, Technical Notices, Software Updates, and support, and other information is available online at <http://www.vari-lite.com> and click on the Support tab. To request access to the password-protected support areas, please contact Vari-Lite Customer Service at 1-877-827-4548 or [customerservice@genlytecontrols.com](mailto:customerservice@genlytecontrols.com).

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## Notes



Vari-Lite  
10911 Petal Street  
Dallas, Texas 75238 USA  
1.877.VARI-LITE \* Fax 1.214.647.8038  
[www.vari-lite.com](http://www.vari-lite.com)

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